POSSIBLE AMENDMENTS TO THE FEDERAL WATER POLLUTION CONTROL ACT

(99-9)

HEARINGS

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

OF THE

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

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POSSIBLE AMENDMENTS TO THE FEDERAL WATER POLLUTION CONTROL ACT

THURSDAY, APRIL 25, 1985

House of Representatives,
Subcommittee on Water Resources,
Committee on Public Works,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:10 a.m., in room 2167, Rayburn House Office Building, Hon. Robert A. Roe (chairman of the subcommittee) presiding.

Mr. Roe. The subcommittee will come to order.

We want to welcome everyone this morning. The Subcommittee on Water Resources begins 2 days of hearings on amendments of the Federal Water Pollution Control Act. These hearings will focus on subjects which have arisen subsequent to the consideration of this act during the preceding Congress. These include the administration's legislative proposal for amendments to the act, financing of publicly owned treatment works, and the 1984 needs survey for construction of publicly owned treatment works.

On June 26, 1984, the House passed H.R. 3282, the Water Quality Renewal Act, by an overwhelming vote of 405 to 11. This bill contained a number of amendments designed to strengthen the Nation's commitment to clean water, including an increase in the construction grants program, a parallel grant assistance program for the creation of State revolving funds, a program to encourage and assist States in the control of nonpoint sources of water pollution, expansion of the Clean Lakes Program, individual control strategies to achieve compliance with applicable water quality standards, improvement of the water quality of estuaries and bays, and assistance to the States in carrying out ground water quality protection activities.

Amendments to the Federal Water Pollution Control Act were reported by the Senate Committee on Environment and Public Works but were not considered by the Senate during the last Congress. This year, we introduced H.R. 8 incorporating the provisions of H.R. 3282 as that bill passed the House in 1984.

During the past 3 years the Subcommittee on Water Resources has received considerable testimony from a very large number of witnesses discussing all aspects of the Water Pollution Control Program. Subsequent to these hearings, new issues have arisen, and we have accordingly scheduled hearings to receive testimony on them.

Our first witness today will be Jack Ravan, Assistant Administrator for Water, U.S. Environmental Protection Agency, but before we call on Mr. Ravan I will now defer to our distinguished representative and the ranking minority member—well, making him the ranking Republican member at the moment, in any case—the Honorable Thomas Petri of Wisconsin.

Mr. PETRI. Thank you, Mr. Chairman. The ranking Republican, Arlan Stangeland, may be joining us shortly. He is tied up at this moment at an Agriculture Subcommittee Grain Program markup but hopes to be here shortly.

He did prepare a statement which I would ask be put in the hearing record, but one part of it I would like to read because it, I think, is appropriate. That is to offer a special welcome to Jack Ravan, EPA's Assistant Administrator for Water. As most of the people here I am sure realize, this is Jack's final week of serving in his present capacity. He will soon—I guess the bureaucratic word is "transition"— to Atlanta to become the agency's region 4 administrator.

We would all like to take this opportunity to publicly thank him for the outstanding job he has done in the past 18 months at the agency and to wish him every continued success as he pursues his new responsibilities. You have done a truly remarkable job under circumstances that I am sure everyone considers less than ideal, so thank you.

Mr. RAVAN. Thank you, sir.

Mr. ROE. The statement will appear in full in the record.

[Mr. Stangeland's prepared statement follows:]

OPENING STATEMENT OF CONGRESSMAN ARLAN STANGELAND

Thank you, Mr. Chairman. It is a pleasure to join you this morning to begin our two days of hearings this year on Clean Water Act amendment proposals.

As no one knows better than you, the issues before us today are not being considered for the first time by this subcommittee. In the past three years, since the Municipal Wastewater Treatment Construction Grant amendments of 1981 were signed into law, this subcommittee has held 20 days of Clean Water Act legislative hearings and has developed a hearing record that encompasses more than six thousand pages of testimony on the Clean Water Act and its implementation. The two days of hearings we will hold this week and next will round off our effort to develop the necessary information we will need for purposes of reporting out clean water legislation this year.

It goes without saying, Mr. Chairman, that our effort to reauthorize the expiring authorities in the Clean Water Act and to otherwise amend the act will be one of the two most important efforts we undertake this Congress from the perspective of assuring ourselves and our constitutents of a safe and healthful environment. Along with Superfund, the Clean Water Act is the major Federal statute designed to preserve and enhance the quality of our Nation's surface and ground waters.

Last Congress, we made a great deal of progress in our effort to understand many of the important issues associated with reauthorizing the act and in fashioning what we believe are reasonable approaches for dealing with those issues. I, for one, was very disappointed that we were not able to reach agreement with the Senate on this legislation before the end of the last Congress because I believe we were very close to being able to reach agreement on a reauthorization bill that would have become law.

This year, both congressional bodies as well as the administration start from the basis of the work that was done last Congress. We all begin the process this Congress well down the road towards our objective, and I am hopeful that, with a spirit of reasonableness and good judgment prevailing, we may be able to agree on Clean Water Act reauthorization legislation that can be signed into law.

Before we begin to receive the views of this morning's witnesses, Mr. Chairman, I would like to offer a special welcome to Jack Ravan, EPA's Assistant Administrator for Water. As I am sure most of us here today realize, Jack is in his final weeks of serving in his present capacity. He will soon "transition" to Atlanta to become the Agency's Region IV Administrator. I would like to take this opportunity to publicly thank Jack for the outstanding job he has done in the past eighteen months at the Agency and to wish him every continued success as he pursues his new responsibilities. He has done a truly remarkable job under circumstances that I am sure all of us would consider less than ideal.

With that, Mr. Chairman, I join you and our colleagues in welcoming this morning's witnesses and I look forward to receiving their testimony and entering into a dialogue with them.

Mr. ROE. I too want to echo those statements, Jack. I think you have been really an outstanding Administrator and have really helped us a great deal through a tough transitionary period. I, too, want to echo the encomia and good feelings that the committee has toward you and your good work, and wish you "Godspeed." I would add one caveat to that, however. Remember, what we write here you are going to have to administrate in Georgia, so keep that in the back of your mind.

If you would be kind enough to go ahead and proceed, we have your full statement, but maybe perhaps you ought to introduce your colleagues for the record.

TESTIMONY OF JACK E. RAVAN, ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY HENRY LONGEST, DEPUTY ASSISTANT ADMINISTRATOR FOR WATER; REBECCA HANMER, DIRECTOR, OFFICE OF WATER ENFORCEMENT AND PERMITS; TUDOR DAVIES, DIRECTOR, OFFICE OF MARINE AND ESTUARINE PROTECTION; SCOTT BUSH, DIRECTOR, ANALYSIS AND EVALUATION DIVISION, OFFICE OF WATER REGULATIONS AND STANDARDS; AND PETER PEREZ

Mr. RAVAN. Thank you, Mr. Chairman and Mr. Petri. I appreciate those kind remarks and I would appreciate this opportunity to do just that.

Dr. Tudor Davies, to my far left, is in charge of our Marine and Estuarine Programs. Ms. Rebecca Hanmer, to my immediate left, is in charge of our Enforcement and Permits Program. Mr. Henry Longest is my deputy in the Office of Water, Mr. Scott Bush, is from our Office of Analysis and Evaluation, and to his immediate right is Mr. Peter Perez, my principal assistant for these matters this morning.

Mr. Chairman and distinguished members of the panel, and to the staff also, if I might just take maybe a minute, perhaps, to echo some of your earlier sentiments, I want to thank you, Mr. Chairman, the distinguished members of the panel, and your staff for the courtesies and excellent treatment that I have received as assistant administrator. These have been difficult times for the Agency.

The one group of people to whom I owe a great, great debt of gratitude—and I hope this committee will always remember their service—is the professional staff, those senior members seated with me this morning and others similar to them in the Agency who have done a tremendous service, a public service to this country during this time. They have served me very, very ably, supported me, and given me every attention that I had either requested or needed. I thank them publicly and personally, Mr. Chairman. I know that I can say to you and other members of the panel that I believe—I am convinced more so than ever—that that kind of service will be the anchor which holds for this Agency in the future. Quite honestly, I look forward to serving you in my new post. I thank you.

Mr. Roe. Very good.

Mr. Ravan. With that, Mr. Chairman, let me do just exactly as you might request and submit my full statement for the record, and I would like to give an abbreviated version of that statement to get us started this morning.

Mr. Roe. The statement will appear in full in the record.

Mr. Ravan. Thank you, sir.

We have learned a great deal at the EPA about the problems of preserving and enhancing the quality of the Nation's waters and our resources since the passage of the Federal Water Pollution Control Act Amendments of 1972. The basic strategy of that statute has proven to be an effective approach to water pollution control. Remarkable progress has been made, certainly, but there is more to be done.

Based on this firsthand experience as well as our vision of the problems that confront the program, we believe and agree that it is time to review this program and focus on adjustment in several areas. Perhaps the toughest issue facing this subcommittee and indeed the Nation concerns the direction and future of the Construction Grants Program which has been an elemental part of this act.

The administration's proposal for a $6 billion phaseout reflects a concern with controlling the Federal budget deficit, a concern which all of us, I am sure, in Government and out, share. It forces us to make these hard decisions and to alter some of our timetables. At the same time, I believe that the proposal provides a return to ultimate State and local self-sufficiency in construction of municipal wastewater treatment facilities.

Briefly, the proposed changes to title II would phase out the Construction Grant Program over a 4-year period, beginning with an authorization of $2.4 billion in fiscal year 1986, followed by $1.8 billion in 1987, $1.2 billion in 1988, $.6 billion in fiscal year 1989, and none thereafter. All funding would be restricted to the completion of currently ongoing phased or segmented projects. This will concentrate resources on completing what we have already started and have committed to fund as a result of the 1981 amendments.

To be eligible, such projects must have been initiated prior to the 1986 budget submittal and must require additional funding to complete remaining segments. To further ensure that Federal funds are directed only to the eligible costs under these amendments for such phased or segmented projects, the 20-percent Governors' discretionary fund, which allows funds to be used for non-eligible purposes, needs to be eliminated from title II. Similarly, the allotment formula used to allocate funds to States would be based on remaining phased or segmented project needs. Finally, other set-asides should be eliminated.

In light of the fiscal requirement to initiate and complete the transition to State and local self-sufficiency as soon as reasonably possible, we view the level of funding for our construction grants and other programs contained in H.R. 8 and H.R. 1509 to be above that which might be acceptable. Moreover, the House bills do not firmly set the stage for a phased Federal withdrawal, and thus could send the wrong signal to States and localities moving toward ultimate financial independence.

Today we begin the final phase of this transition to State and local self-sufficiency. For our States and cities this presents, obviously, a tremendous challenge. I am confident we can make this final funding transition. I do not underestimate the budgetary realities that States and municipalities will face in reassuming increased fiscal responsibilities as this transition proceeds, but over the last few years States and localities have moved a long way toward developing both the institutional and financial capability to address future needs on their own. Already some States have acted aggressively in increasing the amount, diversity, and sophistication of their financial assistance programs for localities.

The next area I would like to address, Mr. Chairman and members of the panel, is civil enforcement. Let me highlight two changes that we feel are extremely important in carrying out the provisions of the act. These changes concern administrative penalties and the maximum daily penalty assessment.

At present we have two civil enforcement options: The Agency may issue an administrative order requiring compliance by a violator, or the Agency may ask the Justice Department to file a civil action in the U.S. District Court for penalties and injunctive relief. The Administration's bill would add a third option: Authority for EPA to assess administrative civil penalties up to $10,000 per day per violation, with a maximum penalty of $125,000. This option is already available under other environmental statutes.

There are differences between our administrative penalty provisions and that contained in either H.R. 8 or H.R. 1509. For example, our provision allows a total administrative assessment of up to $125,000, while the other two bills contain a cap of $75,000. We favor the higher amount because it will signal to the regulated community the importance which this Agency attaches to compliance and enforcement.

Our bill would also raise the daily maximum civil penalty per day per violation, for court actions as brought by the Justice Department, from $10,000 to $25,000. In contrast, H.R. 8 and H.R. 1509 would raise the daily maximum from $10,000 to $20,000 per day. We favor the higher amount of $25,000 per day because we feel this is consistent with the daily maximum civil penalty assessments under the Clean Air, Toxic Substances Control, and Resource Conservation and Recovery Acts. Enforcement consistency among the various environmental statutes is indeed important to our agency and, I believe, the regulated community.

Under criminal enforcement, the criminal penalties contained in section 309(c) of the act would be increased. Existing misdemeanor penalties are retained for negligent violations. However, the penalties for knowing violations of substantive provisions of the act or for permit conditions and limitations would be increased to felony level. Maximum fines for knowing first offenses are increased to

$50,000, together with a maximum term of imprisonment for up to 3 years.

The administration bill's new system of higher criminal penalties is roughly comparable with that now contained for similar kinds of conduct in RCRA—the Resource Conservation and Recovery Act—as that statute has recently been reauthorized by the Congress in 1984. We believe that these penalties, applied to the more serious instances of wrongdoing which cause or threaten to cause significant environmental harm, or which have a significant impact upon EPA's ability to run an effective regulatory program, will have a substantial deterrent effect upon such conduct in the future.

Finally, permitting: The NPDES permit is, in fact, the primary control mechanism for achieving the majority of our Clean Water Act goals. Our bill contains approximately a dozen amendments which will help the NPDES Program to face its new challenges. The most important amendment in this group addresses the need for an extension of the BAT/BCT industrial compliance deadline. There is no question that some kind of extension is necessary. The statute currently requires compliance by July 1984, of course, which is past us.

To alleviate this problem, we are recommending an extension that will realistically recognize the time necessary to issue guidelines and permits as well as provide the dischargers with a reasonable period to achieve compliance. For limitations based on guidelines issued prior to July 1985, the outside deadline would be July 1, 1988, or a time frame of 3 years. For limitations based on guidelines issued after July 1985, or for best professional judgment—BPJ permits, compliance would be required no later than 3 years from promulgation or permit issuance, respectively.

Another amendment we are proposing which affects permitting concerns, section 301(g), modifications for nonconventional pollutants, this amendment would ensure that variances are granted only in those instances where the Agency has adequate scientific information on aquatic life and human health impacts. This is important, since many pollutants defined as nonconventional under the act are in fact or could be highly toxic.

The administration proposal specifies those pollutants for which we have adequate data to determine whether the statutory factors are satisfied. The amendment also gives the Administrator the ability to add pollutants to the list where a petitioner demonstrates the availability of satisfactory test methods and data to make the necessary findings. This is appropriate in light of emerging scientific information in all of these areas.

The balance of our proposed amendments regarding permitting are largely administrative and technical improvements and do not fundamentally change the structure of the NPDES Program. For instance, we are requesting the authority to issue permits with 10-year terms where that is appropriate, and we are seeking clarification of our authority to issue general permits which have been effective in dealing with certain large categories of dischargers with identical control requirements.

In conclusion, Mr. Chairman, I don't believe there are any easy answers to the questions now before this subcommittee on the future of the Clean Water Act. I have attempted to address only the key proposals in the administration's proposed bill. My staff and I stand ready to assist the committee in understanding the remainder of the proposals made and to continue our dialogue, so that the directions of the act for the future can be set and then achieved. Further, Mr. Chairman, I offer the assistance of myself, my staff, or any of the resources at the Agency as you proceed, with other members of the subcommittee, to craft the final language of a bill.

I thank you very much.

Mr. ROE. Well, I want to thank the distinguished administrator for his presentation.

I will defer at the moment to the gentleman from Minnesota, who has to get a picture taken.

Mr. STANGELAND. Mr. Chairman, I have to leave. I would ask unanimous consent that, in the absence of minority members for probably 15 or 20 minutes that, should it arise, the staff be allowed to ask questions.

Mr. ROE. No objection. So ordered.

You mean there are not going to be any minority members here at all? Too bad. [Laughter.]

Well, we want to thank you very much for your presentation. Of course, there are some areas where we—and you expected that—where we are not going to agree with you, particularly on that grants program. You are aware, of course, that the other body, the Senate, has marked up yesterday and I believe they have extended their grant programming and their conversion to the loan program until 1994, is it? Is it 1994 or 1993?

Mr. RAVAN. Plus 9 years, sir, 1985 plus 9.

Mr. ROE. 1994?

Mr. RAVAN. Yes, sir.

Mr. ROE. It puzzles me—and I just want to ask one question before I defer to some of our other members—it puzzles me as to why the administration is taking this approach, taking into consideration the effort that has gone into this national program since 1972 with this partnership between the State governments and the Federal Government. In effect, by phasing out or attempting to phase out the grant program in a 4-year period of time, we are just literally wiping the program out. Is there any explanation, or is the explanation in your testimony?

Mr. RAVAN. The explanation is in testimony, Mr. Chairman, and I would only point out that the budgetary process this year in particular is very, very difficult with the deficit facing the Nation. These decisions, while they are very, very difficult for all of us, seem to do two things: first of all, they offer up the construction grants program as a part of that deficit control; and, second, they send a clear signal that it may, in fact, be time for this program to phase out.

Mr. ROE. Well, are we saying, then, that the administration is now abandoning the clean water program as far as any financial input into it is concerned?

Mr. RAVAN. No, sir; not completely. We foresee 4 more years of continuing but reduced support for the program for a total of $6 billion. This would engender, with the matching funds required presently by the act or perhaps even some of the proposals, a total program of some $10 billion, but that would be the end of the financial support. We are by no means abandoning the other requirements in the act.

Mr. ROE. But we are really only going to become regulatory. I was curious about, what is the administration's position on the mandatory 1988 date to meet the secondary level? In other words, do you recommend any change in that date, because obviously if you are going to phase out that means that each State now is going to have to redo their entire programming, assuming it goes that way, and have to arrange for their financing and so forth and so on. I don't see how they could possibly do that in the timeframe involved, and at the same time be able to provide the funding to get to the secondary level of treatment; do you?

Mr. RAVAN. That is a very difficult question, Mr. Chairman, one that we have agonized over since early 1984. Finally, however, I have come to the conclusion that we have to decouple requirements—that is separate the enforcement or regulatory side of this act—from the grants or construction side of the act, especially in the municipal area, and drive toward a compliance date which we feel is a good tool within the act.

We don't believe that the necessary granting of a financial assistance package precludes, first of all, the use of that date. We, in fact, support the continued identification of the 1988 date. We are not completely convinced that in all cases the cities and towns would be able to meet that date.

Mr. ROE. If the gentleman would yield, if we are going to be adding—which this committee was rather supportive of, to say the least, last time around—we thought that in order to strengthen the regulatory and the criminal offense and the implementation of the program, that we should strengthen the penalties and so forth, which you speak to in your testimony. Now it seems to me that two phases you speak of again in your testimony, one has to do with phasing out the program. The second is that the eligibility as far as the grants program would be concerned would only fall to those States or their subdivisions or their own State priority list or those who are in the so-called construction field on segmented programs.

Now it seems to me that that varies completely—that issue specifically, having nothing to do with anything else—it just varies considerably from State to State and region to region in respective States. It also means that, with the reduced funding to $2.4 billion, that there is not going to be any funding anywheres near enough to meet those needs in some respective States.

It means that the States then are going to have to concentrate on any available funding to go back to those particular projects that are approved within their respective States on the segmented issue, which means that the States have an enormous adjustment to make. Some of them are going to have to go to bond issues. They are going to have to figure some way that they are going to raise the funding that is needed.

For example, in the State of New Jersey their new needs survey indicates now $6 billion. I believe under the plan that is projected here, the funding allocated to New Jersey would be somewhere in the order of magnitude of about $100 million. Now someplace, somewhere, New Jersey is going to have to raise $5 plus billion somehow to be able to meet these needs, which would require a referendum—would take an action of the legislature—would require a referendum which couldn't possibly get on the ballot this year, couldn't get on until next year. Next year is 1986, and there is no way physically that they could—forgetting anything else—there is just no physical way that they could put the facilities in place by 1988. It's just not possible with that kind of a phaseout.

Now with that thought in mind we are coming back and saying to them, "Yes, but if you guys don't do what you are supposed to do by 1988, then you are going to be subjected to different penalties and so forth," so that doesn't seem like, in this member's judgment, to be good thinking on the part of the administration. I mean, here we are pulling the rug out from every program that's going on in every State in the country. In fact, according to your testimony—and I have too much regard for you to play games with you—but according to what you testified to this morning, that is what the administration is saying.

Mr. RAVAN. Mr. Chairman, I have to agree with your summary of what I would describe to be a tremendous amount of pain involved in phasing out this program, financially and otherwise. I would also point out, with regard to the use of the 1988 date, court orders and municipal compliance deadlines which we are in fact planning for, that the fixed date against which all of us can drive is an adequate and needed regulatory tool. It will not in every case suffice to put the facilities in place.

Mr. ROE. All right. I don't want to belabor it. I just want to add one more point for the record. When the EPA task force was established in 1984 on this whole funding program, which you chaired, as I understand it, headed up——

Mr. RAVAN. Yes, sir.

Mr. ROE [continuing]. The recommendation, the consensus of the opinion, does not relate to what the administration is recommending here. In other words, from my seat here the implementation would have carried out over a longer period of time and had substantially additional funding.

Mr. RAVAN. Yes.

Mr. ROE. So EPA's task force had recommended there to be $2.4 billion in grant money in 1986, $1.8 billion in 1987, $1.2 billion in 1988, and $600 million in 1989.

I don't want to let you leave on a discordant note but what we are saying fundamentally, as far as the administration is concerned, they want to hold to the 1988 date, force the issue with higher fines and so forth and so on. It doesn't give the States the time to adjust. They physically don't have the time to adjust and pass the necessary legislation locally. If they wanted to they couldn't get it done, so it seems to me that we've got them bound on one end and we're pulling the rug out from under the other. I don't want to belabor it but that is the Chair's feeling on this.

Mr. WISE. Would the gentleman yield?

Mr. ROE. Of course.

Mr. WISE. If I could just follow up, I think it's a worthwhile topic, Mr. Ravan. Good to see you again.

Mr. RAVAN. Thank you, sir.

Mr. **Wise**. Incidentally, Elk Pinch is running along now, and I appreciate all your help in getting it there.

However, the chairman makes an excellent point. In West Virginia, a smaller State than New Jersey, it is estimated conservatively that there is still $1 billion worth of sewer construction that needs to be done in order to meet the EPA requirements—or the congressional requirements also. You and I both know that West Virginia is not going to put $1 billion into the ground in the next 2 or 3 years.

I have towns that are straight-pipeline sewage into rivers because they have not made it far enough up the priority list yet to be funded at the available level of funding. Apparently I can't tell you the names of those towns because you're going to be after them in 2 years to throw them in jail or put them in hock, but the question is, "What do we do about it?"

I respect your position. You are an administrator of a program, and you have to operate within the confines of OMB and the budget constraints, but the reality is—and I think the point the chairman is making—is it simply can't be done. We are not going to be able to meet those mandates. Instead, I see this incredible crunch coming. We phase the program out on one end. We increase the penalties on the other, and so those who are making a good faith effort to comply, have not been able to put the funding together or have not moved up the priority list enough, for instance, in our State to quality for the EPA program and the State program, in 3 or 4 years they are going to be in a lot of trouble.

I don't see how you are going to be able to enforce those penalties, given these facts. The other thing that bothers me, of course, is that in your remarks you specifically state on page 3 that no Federal funds should be set aside for new starts in rural areas or innovative and alternative projects. How do these States meet these requirements, given these conditions? I don't see how it is done.

Mr. **Ravan**. Mr. Wise, it will be difficult especially for some of the smaller towns that have in fact waited for a grant. It could be argued that the priority listing, and the so-called red tape of the construction grants program, in some cases, actually has been an impediment to progress. Compare the municipal dischargers to the industrial dischargers. They have had no similar funding or financial incentives, only regulatory controls and one can see the difference.

We have no intention or desire to penalize our cities and towns as long as they are working toward compliance—we call it a municipal compliance plan—either laid out by themselves and EPA and/or by the courts. However, we do feel that it is time to ideologically separate the so-called Federal grant structure from the regulatory requirements of the act.

Mr. **Wise**. Thank you, Mr. Chairman.

Mr. **Roe**. Well, it may be time in your judgment, and you are representing the administration. It may be time from your point of view, but the date of 1988 is a certain date. You mentioned in your testimony that you felt that there ought to be an expanded responsibility to the administrators of the program to help relieve the courts of part of this burden. I really fail to see how we would operate the major environmental programs, short of Superfund or at least in parallel with Superfund, through the courts.

I don't want to belabor it. I will defer at the moment to John Doyle, who will have some questions to ask on behalf of the minority. John is the director for the minority. Go ahead, John.

Mr. Doyle. Thank you, Mr. Chairman.

Mr. Ravan, the act contains a number of provisions, including one which establishes a funding set-aside to encourage the development and use of innovative and alternative technologies. Some commentators have told the subcommittee that that program is working extremely well; others have felt that it's not working as well as it could.

Could you provide your thoughts on how well that program is working and how it might be able to be improved?

Mr. Ravan. Thank you, sir.

Mr. Doyle and members of the panel, the Innovative/Alternative Technology Program actually has been successful. I certainly would characterize it that way.

We have seen 35 or so States make use of the innovative alternative technology set-aside. The remainder of the States, which has been one of the criticisms of the set-aside lose dollars because they have not taken advantage of it.

That amount grew in fiscal year 1983 to approximately $13 million, which had to then be redistributed to those States that were, in fact, taking advantage of it.

One of the things that bothered the States, I believe, was the so-called drag that the innovative/alternative set-aside took with it. That is, when you used the innovative/alternative approach you got an additional increase on your grant. That increase will come down now. Used to the maximum, the set-aside could have in fact used up perhaps 30 percent-plus of the overall State authorization.

I would call on my Deputy, Mr. Longest, to add any comment he would like to regarding that program.

Mr. Longest. I think the major success has been in the alternative area. We have well over 1,000 projects in the land application category. These kinds of projects work very well in small communities.

The innovative technology projects are more difficult because you are talking about innovation, new science approaches that have only received benchscale testing.

In terms of the dollars that Mr. Ravan mentioned, our projection is that the State turnback of about $13.7 million in fiscal year 1983 will decrease to about $5 million turnback in fiscal year 1985. We don't like to see the dollars turned back. They should be used for innovative and alternative projects but, frankly, some of the States have chosen not to use this program of their own option. They feel that they do not want to tie up not only the I&A money but also the money that must follow for the 75 percent and now the 55 percent grant funds.

Despite this, I think we have gained a lot. I would have to say most of the gain has been in the alternative area of land treatment.

Mr. **Doyle**. Why is it that the 15 States have not decided to go forward with the program and to forfeit the moneys that have been set-aside?

Mr. **Longest**. I think there are two reasons. One is the amount of money that I&A pulls along with it. Up to 34, 35 percent of the State's allotment would go on that project when you include the base amount plus the innovative and alternative amounts.

The other reason is that in some parts of the country alternative projects in particular—Alaska is a good example—just does not lend themselves to the type of climate that is encountered.

So there are several reasons, but we think they are good reasons.

Mr. **Doyle**. The Supreme Court recently upheld EPA's authority to issue fundamentally different factor variances. Some have argued that having the authority in the act for the agency to grant those variances provides a disincentive for a discharger to provide upfront necessary information, hoping, therefore, that the standard that would be set without the information would not reflect a particular plant situation, and then an opportunity would be provided at the tail end of the system to come in and go after a variance.

What sense do you have for that argument? Has there been any indication in the standard-setting process that that kind of situation has been occurring?

Mr. **Ravan**. Mr. Doyle, let me ask Ms. Hanmer to add to my comments.

The question of fundamentally different factor variances I believe should be graded first upon the performance of the Agency to date. We actually have issued only four so-called FDF's while we have thousands of major permits on line, and many more thousands of minor permittees on line with permits under the guidelines as provided.

The second mark that I look to as the courts have now interpreted this mechanism for us and believing that it is in fact a good mechanism, is the fact that there have been only 60 to 70 requests out of all of those thousands of permits for fundamentally different factor variances. Perhaps 23 or 25 of those were direct dischargers; perhaps 40 or so were indirect dischargers.

There are two areas that arguably should be the subject of consideration. What should be the condition of the applicant's discharge during our consideration of the FDF request and what might be done to insure adequate information is received from the applicant at the front end of the guideline development which is the point you make and gets into the overall consideration as to whether or not that permittee should be granted an FDF later on.

For some expansion, if I may, I will call on Ms. Hanmer.

Ms. **Hanmer**. The answer to the question about whether or not we think people may withhold information at the effluent guideline stage deliberately so they can come in for an FDF later gets into motivations for which we would not have a lot of data. Our impression from reviewing the FDF requests that we have gotten is that major companies have raised issues at all stages of the process. You can look into the record and see that they actively have tried to influence the development of the effluent guideline, the contents of the guideline and that they have challenged the guideline. For major dischargers, I don't know that we could say information had been withheld at the earlier stages.

The same may not be true for small facilities that do not track the development of guidelines very closely and may not realize the effect of the guideline until we get into the permit process.

Mr. DOYLE. Have you found any instance so far on the basis of a review of the applications pending that someone may have withheld information on the front end, hoping to have a variance opportunity in the back end?

Ms. HANMER. I don't have any information that that is the case. We can look into the data and try to give you a more complete answer for the record.

Mr. DOYLE. Thank you.

Thank you, Mr. Chairman.

[Mr. Ravan's response to Mr. Doyle follows:]

EPA RESPONSE TO CONGRESSMAN STANGELAND

FUNDAMENTALLY DIFFERENT FACTORS VARIANCE

Question. Have any instances occurred where an FDF applicant had withheld information or not raised relevant issues in the guidelines development process?

Answer. EPA is unaware of any instances where this has occurred.

We cannot be certain what motivates people to participate or not participate in the guidelines development process.

However, it is our perception that major industrial facilities and trade associations generally participate in all phases of the process:

they actively try to influence the development and contents of the guideline,
they supply most of the information EPA uses to develop the guideline,
they challenge the guideline,
they negotiate during permit development,
they file variance requests, and
they challenge permits.

We have no evidence that they intentionally withhold data and forego one opportunity to influence EPA in the hopes that their chances will be improved at the next stage. Facilities subject to a guideline may supply additional, detailed data that is newly developed as the process evolves giving the inaccurate impression that they were withholding information at earlier stages.

The situation may be different for small facilities. Many of these do not have the ability to track and participate in the guideline development process. Therefore they may raise at the permit issuance or variance stages issues that could have been raised during guideline development. This may occur because they may be less familiar or unaware of the guidelines development process. The permit or enforcement process may be the first Agency action that directly affects them and motivates them to raise issues.

Since only four FDF variances have ever been granted by the Agency, we believe a discharger would be ill-advised to wait for that process rather than raise its issues earlier. We also feel that a statutory prohibition against granting an FDF variance to a discharger who did not participate in the development of a guideline is unwarranted and unfair.

Mr. ROE. The Chair recognizes the gentleman from West Virginia, Mr. Wise.

Mr. WISE. Thank you, Mr. Chairman.

Mr. Ravan, if I could follow up, one of my greatest concerns in the administration's proposal is, as I read your statement that: "No Federal funds should be set-aside for new starts in rural areas," which of course hits kind of close to home, "or new innovative alternative projects."

I guess I would like to explore the administration's thinking behind no new starts with I&A projects because what we have been trying to push in our area for the last few years is innovative and alternative design, recognizing that when we are getting away from the traditional collector systems we are able to cut costs, we are able to get much more out of the Federal dollar. To try to get our engineers, our designers, our contractors to look at I&A design, and to get aways from building the old battleships of the past, I think that would be in keeping with the administration's policy. Indeed, as you know, EPA will fund an innovative and alternative design at a higher level than it will a traditional. Why does the administration now want to discourage this kind of approach?

Mr. **Ravan**. Mr. Wise, first, let me add a comment. I would certainly compliment the direction that you have outlined. Our statistics show that perhaps as much as a $1.8 billion in savings nationally have come about because of the installation of I&A, which to us says, yes, it is a good program.

The program has added much to our knowledge with regard to what is especially for appropriate the midsize or smaller towns, or indeed those towns that have a good bit of land on which to place facilities.

Finally, the answer to your question is simply one of dollars. The administration's position is that we are sending a clear signal that the amount of dollars now left in the program under the administration's proposal would simply have to be directed to those projects which are in fact underway. Obviously, that precludes new starts. We are trying, in essence, to buy out what we promised.

Mr. **Wise**. I guess you could help me with that logic. If there has been that significant of savings from use of innovative and alternative design, then it would seem to me that you could get some more projects in the ground at much less dollars, also meeting that mandate that we are steering toward in 1988.

As I say, we have finally gotten people in our area to stop thinking in terms of running hundreds of miles of pipes over mountains and to look at innovative and alternative design, and now that is about to be cut out.

We could get more projects going in the ground. We could be meeting the EPA mandate and the congressional mandate, and at far less dollars.

As I say, even taking the administration's logic and the administration's presumptions, it seems to fly in the face of the administration's purposes.

Let me ask whether you have done any kind of analysis of what kind of impact this is going to have on rural areas because, once again, as I say, no Federal—in your statement you say no Federal funds should be set-aside for new starts in rural areas, but yet I suspect that rural areas are the ones that may be behind in sewage treatment, aren't they?

Mr. **Ravan**. Yes, I believe the record would show that some of these smaller towns and more rural areas in fact have no discharge or they have a small discharge of a million gallons or less. In many cases their discharges are raw, untreated waste. They are not very high on the priority list. Indeed, they have been waiting for their grant.

Unfortunately we have in some cases quite honestly encouraged this situation by virtue of the structure of the priority listing and it has worked to the detriment now of those smaller towns.

One simply confronts the issue head on, and it is simply a question of how will you spend the rest of the money that you would like to make available under this program.

Mr. Roe. Would the gentleman yield?

Mr. Wise. Yes, certainly, Mr. Chairman.

Mr. Roe. Has the administration or has the Agency run out the figures? For example, we have two ships traveling perhaps in a different direction here.

As we understand the recommendation for the administration, it is $6 billion to finish the projects underway.

Has the administration checked this out—because the segmented projects that are involved is what you talked about to concentrate on, according to your testimony. Then over that 4-year period of time you are talking about a total allocation of $6 billion. The question is, has the agency checked each State to determine whether that $6 billion would complete those segmented projects in those respective States?

Mr. **Ravan**. Mr. Chairman, we are, indeed, doing some more detailed checking with the States, and I will be happy to provide that to you.

[Mr. Ravan's response to Mr. Wise follows:]

EPA Response to Congressman Wise

Question. What would be the impact of the administration's proposed construction grants phase-out on rural areas?

Answer. The effects of the Administration's proposal on local sewer rates and the effect on large versus small communities depends on a variety of local factors, such as 1) the nature of current facilities, 2) the community's financial base, 3) the financial terms of a community's loans or bonds, 4) the construction technologies used, 5) the use of privatization options, and 6) the relative financial contributions of state governments.

In the past, there has been a tendency in some cases for small communities to build relatively expensive centralized, mechanical treatment facilities with projects supported by Federal grant funds. For several years EPA has recommended less costly facilities using the most appropriate, simple technologies with low operations and maintenance costs. Such systems (including lagoons, cluster systems, sand filters, and land treatment) can enable communities to more easily meet the requirements of the Clean Water Act in the absence of Federal grants.

To the extent that small communities build new treatment facilities involving centralized mechanical treatment approaches, there can be a financial impact on small communities. To the extent that the communities upgrade existing facilities or use the most appropriate low cost technologies described above, these financial impacts can be significantly reduced.

Mr. **Ravan**. There is at least a split opinion as to the exact amount of dollars for the completion of phase-segmented projects, and I believe the $6 billion estimate must have two fundamental assumptions to carry the day.

One is that the Federal share will not change; that is, most of those segmented projects will be funded at a 75-percent level. Second, of course, all the money in the bill would be directed toward buying out of that particular category; and the performance curve of redistribution of funds that we have seen in the past, some $2 or $300 million, would continue to be the case.

Mr. Roe. Well, let me put in a little more succinct language. It seems to me that we need a report from the administration, from the EPA, to tell us the following, if the gentleman would yield further: No. 1, how many projects that have been approved from EPA fall in this category?

Mr. Ravan. Yes, sir.

Mr. Roe. No. 2, that is a variable from State to State. If some State was a little more energetic and got things started, you could have a plethora of additional projects in a given State and not in another.

Mr. Ravan. Yes, sir.

Mr. Roe. The next item is that these funds would be allocated on the basis of the needs formula and/or a needs formula as further developed by the House and the Senate to do this. Then the question is, is this $6 billion adequate to meet those particular requirements, remembering that we only allocate to States that which is their proportionate share of whatever the funding may be for that given year, or are we coming back and saying that there would be some States that don't have that many projects pending, but another State does. Therefore are we talking about switching funds from one State to another? That is a very important point to this committee, and we need that report from you as quickly as possible.

Mr. Ravan. I will be happy to provide that, Mr. Chairman.

Mr. Roe. You understand what I am looking for?

Mr. Ravan. Yes, sir, I do.

[Mr. Ravan's responses to Mr. Roe follows:]

EPA Responses to Congressman Roe

CWA REAUTHORIZATION QUESTIONS

Question. What is the federal share necessary to buy out phased/segmented projects?

Answer. Subject to further refinement of the list of identified phased/segmented projects, we believe $6 billion at 75% will satisfy needs.

Question. How many projects are in this category?

Answer. These estimates are based on 855 grant awards to 416 authorities/facilities. It should be noted that there is no statutory or regulatory deadline that would limit the identification of phased/segmented projects. These numbers are based on a survey of EPA Regional Offices and are subject to change.

Question. Is the Administration's $6 billion proposal adequate?

Answer. We believe the proposed $6 billion will be adequate to address the currently identified phased/segmented needs.

Question. What is the effect of an allotment formula based on phased/segmented project needs under the Administration bill compared to the current allotment formula?

Answer. See attached table.

COMPARISON OF POTENTIAL ALLOTMENT FORMULA
TO CURRENT CLEAN WATER ACT
NEW FORMULA SPECIFICATIONS: MCD P/S PROJECTS
NEEDS: GRANDFATHERED(P/S) ONLY
CATEGORIES: ALL GRANDFATHERED
RELIABILITY LEVEL: ALL

STATE	POTENTIAL ALLOTMENT	CURRENT ALLOTMENT	DIFFERENCE	POTENTIAL ALLOTMENT	CURRENT ALLOTMENT	DIFFERENCE
ALABAMA	0.0028	0.011398	-0.008635	6,631,710	27,355,200	(20,723,490)
ALASKA	0.0066	0.006101	0.000510	15,866,310	14,642,400	1,223,910
ARIZONA	0.0063	0.006885	-0.000614	15,051,492	16,524,000	(1,472,508)
ARKANSAS	0.0021	0.006668	-0.004593	4,979,441	16,003,200	(11,023,759)
CALIFORNIA	0.1133	0.072901	0.040362	271,832,208	174,962,400	96,869,808
COLORADO	0.0033	0.008154	-0.004891	7,831,303	19,569,600	(11,738,29[illegible])
CONNECTICUT	0.0021	0.012487	-0.010431	4,934,173	29,968,800	(25,034,627)
DELAWARE	0.0000	0.004965	-0.004965	0	11,916,000	(11,916,000)
DIST OF COL	0.0150	0.004963	0.010077	36,100,947	11,916,000	24,184,947
FLORIDA	0.0074	0.034407	-0.027013	17,744,917	82,576,900	(64,831,883)
GEORGIA	0.0190	0.017234	0.001741	45,539,251	41,361,600	4,177,651
HAWAII	0.0141	0.007895	0.006157	33,724,395	18,948,000	14,776,395
IDAHO	0.0030	0.004965	-0.001947	7,242,923	11,916,000	(4,673,177)
ILLINOIS	0.0339	0.046101	-0.012179	81,413,859	110,642,400	(29,228,541)
INDIANA	0.0000	0.024566	-0.024566	0	58,958,400	(58,958,400)
IOWA	0.0243	0.013796	0.010507	58,327,361	33,110,400	25,216,961
KANSAS	0.0068	0.009201	-0.002411	16,296,352	22,082,400	(5,786,048)
KENTUCKY	0.0134	0.012973	0.000428	32,162,662	31,135,200	1,027,462
LOUISIANA	0.0089	0.011205	-0.002331	21,298,427	26,892,000	(5,593,573)
MAINE	0.0033	0.007788	-0.004440	8,035,007	18,691,200	(10,656,193)
MARYLAND	0.0493	0.024653	0.024604	118,216,455	59,167,200	59,049,255
MASSACHUSETTS	0.0037	0.034608	-0.030949	8,781,923	83,059,200	(74,277,277)
MICHIGAN	0.0145	0.043829	-0.029372	34,697,650	105,189,600.	(70,491,950)
MINNESOTA	0.0027	0.018735	-0.016057	6,428,006	44,964,000	(38,535,994)
MISSISSIPPI	0.0055	0.009184	-0.003724	13,104,983	22,041,600	(8,936,617)
MISSOURI	0.0149	0.028257	-0.013338	35,806,707	67,816,800	(32,010,093)
MONTANA	0.0011	0.004965	-0.003899	2,557,622	11,916,000	(9,358,378)
NEBRASKA	0.0032	0.005214	-0.002036	7,627,598	12,513,600	(4,886,002)
NEVADA	0.0042	0.004965	-0.000797	10,004,150	11,916,000	(1,911,850)
N HAMPSHIRE	0.0257	0.010186	0.015532	61,722,434	24,446,400	37,276,034
N JERSEY	0.1510	0.041654	0.109304	362,299,596	99,969,600	262,329,996
N MEXICO	0.0090	0.004965	0.004070	21,683,202	11,916,000	9,767,202
NEW YORK	0.1945	0.113097	0.081441	466,890,490	271,432,800	195,457,690
NORTH CAROLINA	0.0034	0.018396	-0.015001	8,148,176	44,150,400	(36,002,224)
NORTH DAKOTA	0.0009	0.004965	-0.004107	2,059,678	11,916,000	(9,856,322)
OHIO	0.0362	0.057383	-0.021207	86,823,343	137,719,200	(50,895,857)
OKLAHOMA	0.0041	0.008235	-0.004104	9,913,614	19,764,000	(9,850,386)
OREGON	0.0050	0.011515	-0.006536	11,950,658	27,636,000	(15,685,342)
PENNSYLVANIA	0.0151	0.040377	-0.025226	36,122,581	96,914,800	(60,791,219)
RHODE ISLAND	0.0106	0.006750	0.003873	25,508,318	16,200,000	9,308,318
SOUTH CAROLINA	0.0035	0.010442	-0.006904	8,442,416	25,060,800	(16,618,384)
SOUTH DAKOTA	0.0028	0.004965	-0.002126	6,812,781	11,916,000	(5,103,219)
TENNESSEE	0.0010	0.014807	-0.013807	2,399,135	35,536,800	(33,137,615)
TEXAS	0.0503	0.038725	0.011579	120,728,809	92,940,400	27,788,409
UTAH	0.0034	0.005271	-0.001966	8,170,810	12,890,400	(4,719,590)
VERMONT	0.0013	0.004965	-0.003673	3,100,834	11,916,000	(8,815,166)
VIRGINIA	0.0232	0.020861	0.002386	55,792,372	50,066,400	5,725,972
WASHINGTON	0.0138	0.017726	-0.003938	33,090,648	42,542,400	(9,451,752)
W VIRGINIA	0.0011	0.015890	-0.014824	2,557,622	38,136,000	(35,578,378)
WISCONSIN	0.0440	0.027557	0.016485	105,699,451	66,136,800	39,562,651
WYOMING	0.0016	0.004965	-0.003343	3,893,017	11,916,000	(8,022,983)
A SAMOA	0.0002	0.000915	-0.000679	565,846	2,196,000	(1,630,154)
GUAM	0.0015	0.000662	0.000875	3,689,313	1,588,800	2,100,513
N MARIANAS	0.0001	0.000425	-0.000331	226,338	1,020,000	(793,662)
PUERTO RICO	0.0120	0.013295	-0.001227	28,7[illegible]	31,908,000	(3,165,679)
TRUST TERR	0.0000	0.001305	-0.001305	0	3,132,000	(3,132,000)
VIRGIN ISLANDS	0.0003	0.000531	-0.000220	746,916	1,274,400	(527,484)
	1.0000	0.99996	[illegible]	[illegible]	[illegible]	[illegible]

Mr. RAVAN. If you would like, I can give you just one comment that I know is accurate with regard to your third point.

If, in fact, the Congress would direct us to stick with something close to the present allocation formula, then the buyout does not work.

Mr. ROE. It won't work.

Mr. RAVAN. No, sir.

Mr. ROE. If the gentleman would yield further, let's make one more very telling point. Knowing something about the construction industry, that would seem to me—let's take a hypothetical case. Let's take the State of New Jersey. Let's say that we have 18 projects that are pending there, and no matter what you would do in the allocation of the proportionate share of the $6 billion as it related to that commitment to that State under the needs formula, which would be equity amongst the States on whatever is going to be allocated in your formula, that that State cannot complete its work in that period of time. We would have to be able to take funding from other States on legitimate projects that you are recommending should be completed because they were segmented. We have some "beauts" in New Jersey; make no mistake about that. I am talking about substantive funding being needed.

Mr. RAVAN. Yes, sir.

Mr. ROE. So I don't think that your testimony has given us those facts, and we are going to have to have those facts to determine whether it is practical or not.

The gentleman from West Virginia.

Mr. WISE. Thank you.

I would really like to see that information also, Mr. Chairman. That is an important area.

Mr. Ravan, from my understanding, when you say no money for new starts, West Virginia has a priority list, I believe, of something over 100 projects that have gone through the design phase. Are they within that——

Mr. RAVAN. No.

Mr. WISE. Where is the cutoff? Is it when you are in step 2 or step 3? Where do you cut that off and say this is a start that would be eligible and this is not? I am trying to figure out what groups of people I have to tell there is no hope.

Mr. RAVAN. Let me check with Mr. Longest. I just want to make sure that I give you the right answer.

There are two parts to this. First of all, only those projects that were, in fact, segmented and had, in fact, received the so-called step 3 grant, construction grant, as of the submission of the President's budget would be eligible.

Mr. WISE. So most of those folks are going to fall off, then, on our list? I think they funded the first 10 or something like that.

Well, I appreciate your testimony. You helped work some magic in Elk Pinch. I'd like to invite you back to walk another 100 miles along the Elk River, because it all requires sewage treatment plants, and help explain this to them. I invite you to come down.

Mr. RAVAN. Thank you.

Mr. WISE. Thank you, sir.

Mr. ROE. The Chair recognizes the distinguished gentleman from New Jersey, Mr. Gallo.

Mr. GALLO. Thank you, Mr. Chairman.

Mr. Ravan, it was reported in USA Today, around April 10, that the EPA had improperly awarded some $38 million in construction grants to publicly owned treatment works, in certain States. Would you comment on this?

Mr. RAVAN. Yes, sir.

Thank you, Mr. Gallo.

The news report was taken from an actual report by the GAO with regard to our award of State program grants, those grants which are given to the States by law, to assist them in carrying out the requirements of the act.

The $38 million, in our opinion, is, if I may use the term, a balloon figure. While the actual face amount of the grants involved could add up to $38 million, the so-called matching requirements by the States who had, indeed, received these grants was something a lot closer to $5 million.

Second, it is only a question—it is not necessarily a reality—that those costs were, indeed, in some way misspent or not matched, and so forth. It does call into question the oversight and necessary management.

We have looked at this report and have taken steps that I believe have satisfied our inspector general that the level of effort required by these grants on the parts of the States are, indeed, met. If they are not, we would retrieve those moneys in future years.

Mr. GALLO. From what you are saying, the amount reported may be inflated. Were improper procedures used?

Mr. RAVAN. Not necessarily improper procedures, Mr. Gallo. In my opinion, as I was looking through this report, it was a problem of matching funds. In some cases States are required to maintain a certain number of personnel, so many resources within the organization, and it is not always, apparent to the casual observer that someone has either 18 or 20 people working.

There were other instances in the report where basic, simple documentation was not available to the auditor. I can think of one case where the documentation showed up later, which would drive that number down.

I am not trying to say to the subcommittee that we did not need the report. We did. It did serve us well. I think it has shown us that increased diligence and vigilence on our part is necessary when we make some 75 million dollars' worth of grants each year.

Mr. GALLO. In dealing with the proposal to phase out construction grants, I find difficult to reconcile that proposed with the requirements that the States have to meet in 1988. When those requirement were set it was recognized that there was a place for a Federal grants program.

I know you are carrying the water for the administration, but in view of the existing law with its 1988 deadlines do you not think that there is an area for Federal involvement—whether it is in the existing grants program or in an infrastructure bank such as currently being proposed?

Mr. RAVAN. Mr. Gallo, I am in fact carrying the water, as you point out. Beyond that, I have, thankfully, some 10 years of experience with regard to managing this program at State, regional, and now headquarters level. That experience, as well as the present administration position, says that there is a recognition—and I believe I can properly represent this to you—across the water pollution control industry, those persons who do everything from make valves and those persons who actually finally have to operate and maintain the plants that the time has come when this program has served its initial purpose. I believe that initial purpose was accurate or correct and proper. That is to say, an initial thrust of energy and effort on the part of this Nation to clean our waters.

There are two parts to that. First, there is a philosophical acceptance that the Federal Government, the Federal tax dollar, would support that effort at 75 percent levels. Second, we would do that specifically for towns and cities, not necessarily other dischargers.

I believe and there is a wide recognition, that the program has served its first purpose—that is, to buy the first round. I don't believe there was ever any belief that we were supposed to come back and buy and buy and buy the second, third, and fourth round.

I believe, further, that the cities and towns, quite honestly, at this point in time, for the most part—are able to go forward with local funding, and that given the requirements of the act, may in fact be the best choice for them.

Mr. ROE. Would the gentleman yield?

Mr. GALLO. Yes.

Mr. ROE. That has not been the intent of the Congress or any other administration up to this administration. The commitment was made in 1972 as a national priority that we were going to move to meet certain dates and do certain things, and that was the commitment made.

Over the years this program has been diminished simply because of coming back and saying, well, the budget can't afford it. Well, you know, when we can spend a trillion dollars to build some aircraft, and whatever, we ought to be able to clean up part of the pollution problem or the pollution problem that affects the water resources of this Nation.

Every single State has been held back time and time again simply because of the ineptness of how this program has been carried out. That point nobody disagrees with.

But to assume in 1972 or 1981 or in 1983, and now 1985, that it was the intent of this committee that we were going to walk away from the situation in the middle before we had completed our commitment—in fact, what we are saying is that the estimated cost of completing this job, which was started in good faith by this country and by the Congress of the United States, and administration after administration, was to do one fundamental thing: to keep our people from being poisoned. What we are saying fundamentally now that we are talking about cleaning this up in your view for $6 billion is that it is going to cost $35 or $40 billion to do the job that this Nation committed to.

Is it not true that that simply means that if we are going to hold the 1988 date that the States are going to have to find some way to put up that kind of money? Now our State has passed a bond issue for $450 million to do our share on the guidelines that were set down by EPA and administration after administration. In effect, we are coming back here and saying that all bets are off and only those projects that EPA segmented have a chance of getting completed. Now that is not going to clean up the pollution in this country.

Now fundamentally we have to call it as it is. It was never the intent of Congress that this program was to be stopped either by the Congress or the administration simply because of some super whatever budget issue. I don't want that to stay on the record. That has never been the intent of this program, and I have been here for 16 years and helped create this program and know every detail that is involved in it, with no aggrandizement to me.

I do not want the record to say that those States are ready to pick that up; that those municipalities are capable of performing, because they are fundamentally not. That is the purpose of the law in the first place with a national commitment to this issue.

The gentleman from New Jersey.

Mr. GALLO. In the process of developing this program which you are presenting to us, did you consider alternatives such as a Federal infrastructure bank with a rotating source of dollars?

I cannot conceive of setting up and then dismantling this whole grants program without providing alternatives. I can see it is very costly and, as we all know, we are trying to reduce the deficit. At this time, however, I would have been looking for other avenues of funding which would afford the States and the municipalities the opportunity to continue this program which is critical not only for their economic development, but also for their health needs. We are talking about water needs of future generations.

Now, to say that within a 4-year period we are going to be out of the business is a little irresponsible.

I find it a little difficult to have a phaseout proposed as a fait accompli without also being provided with proposals which would give an opportunity to States and municipalities to find alternative funding.

Are there any such proposals that you have discussed with your people?

Mr. RAVAN. Mr. Gallo, not in regard to preparation of this particular budget. The Environmental Protection Agency did, in fact, complete a study last year that looked at opportunities for a change. We found that a State revolving fund and/or participation by the private sector might be an appropriate choice.

Mr. GALLO. Thank you.

Mr. ROE. I thank the gentleman from New Jersey.

I would suggest that we have now a vote on the journal, I believe it is——

Mr. YOUNG. Mr. Chairman.

Mr. ROE. Yes, the gentleman from Missouri.

Mr. YOUNG. I would like to associate myself with your remarks. I have been following this bill since 1972, as a member of the Missouri Senate. I think Missouri went ahead in 1976 to try to get us to the point where we are right now. We should move ahead, and I agree completely with all your remarks.

Mr. ROE. I appreciate that.

Let me suggest this: we have some very, very distinguished witnesses after the Administrator. Let's just recess, go to vote, and then come back and continue right on, because I want to be sure that we have the members back here to pay respect, and not only that but attention, because I think the testimony today is extraordinarily important in our decisionmaking process.

The committee will recess for a few minutes to go and vote and return, and then we will pick up from there.

[Recess taken.]

Mr. Roe. The committee will reconvene.

We will continue on with the distinguished Administrator. The Chair defers now to the gentleman from Wisconsin, Mr. Moody.

Mr. Moody. Thank you, Mr. Chairman.

Mr. Administrator, could you discuss your thinking and the administration's thinking in terms of nonpoint source pollution? There have been amendments to previous bills—we had them here last year—that made an important beginning to tackling what everyone admits is obviously a very important problem. Up to 50 percent of water pollution, particularly in the category of biodegradables, but not limited to that, comes from nonpoint source pollution. Any attempt to clean up water which does not address nonpoint source pollution is missing a very large portion of the problem. In some areas of the country it is the largest part of the problem.

We could, of course, spend more and more, trying to get point source pollution under control, but if we do not address nonpoint source pollution, we are essentially wasting a lot of that money.

Can you tell us about your thinking on that subject?

Mr. Ravan. Thank you, Mr. Moody.

Over the past year an Environmental Protection Agency Task Force chaired by myself and ably assisted by scientists and others within the Agency, carried on a 1-year effort with some 22 local, State, and Federal agencies, because of the need to focus on this very important area.

I certainly would agree with you. There is no disagreement from us with regard to the fact that nonpoint source pollution is, indeed, an area that we need to address now.

We came forward with a proposed national policy that is, in fact, moving through clearance channels.

Some 22 agencies submitted what we call strategies for cleaning up, and for helping to assist with nonpoint source pollution control—agencies such as Agriculture, Interior, Energy, Defense, and others. We believe that substantial progress can be made by simply applying this policy. If we, in fact, provide this leadership from the Federal side, we believe that a lot of the nonpoint source pollution will, in fact, be eliminated, and we could very well set a pattern for adoption of these techniques by State and local governments. In aggregate, we might be able to reach a substantial portion of the nonpoint source insult.

Mr. Moody. Well, the leadership that you speak of is, of course, so important from the Federal Government because many nonpoint source pollution problems are multi-State in nature; this is particularly true on the east coast, of course. The Chesapeake Bay is just one example——

Mr. Ravan. Yes.

Mr. Moody [continuing]. But there are many others. It is true everywhere.

Since they are multi-State, it requires Federal leadership to pull it together because the incentive is always to do less than your share if you are sharing with a number of other jurisdictions. The incentives are obviously reversed.

What leadership are you actually talking about at the Federal level? I think most people who have looked at this think we need a system of sticks and carrots. Of course, carrots cost money. The Federal carrot is what, then? What would you say the Federal Government is prepared to do in this area?

Mr. **Ravan**. Mr. Moody, there are two points I would make. The question is—who is going to pay for it. When we begin to calculate the cost for correction of the nonpoint source problem and the implementation of the plan, the cost could become very high, and who shall bear that burden? We all know the answer to that. We shall, all of us, in some form or another.

The leadership that I have discussed is exemplified by the Agency and other similar departments and agencies in our Chesapeake Bay Initiative, the Clean Lakes Demonstration Program, our efforts with the Great Lakes, our small but meaningful, I think approach to some of the very important bays already named around the country.

If we extend those kinds of programs over to Agriculture, Interior, and others who are very large land managers they have in place the kinds of best management practices that we are talking about. Therein lies the leadership that I think will be necessary.

We cannot support massive Federal implementation programs—massive in terms of dollars. I do not believe we are that far along, and I am not certain in my own mind, nor is the administration, that that might in fact be the best approach.

Mr. **Moody**. I would not disagree that we cannot expect massive spending at the Federal level for this, but there have been a number of creative suggestions made that do cost a little bit of money—things like some rewards or categorical grants to States for setting up the legal framework to do these things, to set up the administrative framework to do these things.

As you, of course, know as well as anyone here in this room, the problem is often getting farmers, who are very independent minded, obviously, to coordinate with each other and work on a program together. There is no point in my managing my land properly to reduce a nonpoint source of pollution unless others do it too. It almost has to be a collective activity. That raises a lot of political barriers.

But you can do things—and although I am very proud of what Wisconsin has done at the State level to show some real leadership—I think there is a limit beyond which a State cannot go and the Federal Government has to go. It does not mean spending a lot of money necessarily, but it does mean some specific organizational infrastructure. What do you recommend? What do you propose the Federal Government's responsibility be? What creative initiatives, that don't cost a lot of money, could you help us with?

Mr. **Ravan**. First of all, Mr. Peter Meyers at the Department of Agriculture, has worked with me and over this past year to determine that in fact we can close this so-called gap. Actually, when you get past the emotional issue involved in nonpoint source control that you have alluded to, we find that their goals and their achievements are the same ones we want. They want to save their soil; we would like to keep that soil from becoming runoff into the water.

They would like to contain their pesticides, fertilizers, et cetera, on the land. We would like to do the same thing by keeping it out of the water. We are not enemies. This wall that has grown up has no real basis in substance.

We must, in fact, work to tear down that. We can work together, and we are going to do that by virtue of publications, technical assistance, common goals in our programs, the way we award dollars, and the carrying out of the strategies that I mentioned.

Mr. MOODY. About awarding dollars; I am glad to see that our colleague, Mr. Oberstar, has joined us because he has been a leader in the question of nonpoint source pollution and one of the architects of an amendment that was added last year. There was some money put in the bill—it wasn't very much—to give States some incentive, some grants for creating these initiatives. Are you proposing that that not be done or are you supporting such incentives?

Mr. RAVAN. No, sir. Grant assistance and award of money at the present time, I believe, acts as an incentive for the States, especially States such as yours, to put those dollars where they feel they might best be applied. The section 106 grants provide about $75 million a year to the States, and some of the demonstration programs that I have already mentioned provide the kind of assistance we're talking about. In excess of $100 million a year is provided to the States for use in nonpoint source programs. I cannot support today any substantial increased funding in this area.

Mr. MOODY. Let me change the subject, if I might, Mr. Chairman.

We have a situation in my hometown, Milwaukee, where we were sued by the State of Illinois some years ago for putting what they felt was inadequately treated sewage into Lake Michigan, which Chicago and the rest of Illinois share with us. Chicago, of course, flushes their sewage down the Mississippi, but they don't put any in Lake Michigan. So they were holier than thou in this instance.

They sued us, and they sued us under a nuisance statute, a common law nuisance statute. The State of Wisconsin and Milwaukee took it all the way to the Supreme Court, and we won, but we won on the grounds of the following argument: that the Clean Water Act was so thorough and so complete that it, in effect, preempted common law remedies.

Does the administration support that? Or do you support what I understand is a provision that has been added on the Senate side recently, to reopen the ability of States, either in Federal or in State courts, to sue one another to go beyond the standards that are required under Federal permits? The Clean Water Act standards would then become, in effect, irrelevant. That way, a State could impose on an upstream or neighboring State any standard it could convince a judge to support. Or do you hold that the Clean Water Act should be—in all its interstices, to use the legal language—a complete remedy that preempts that common law remedy?

Mr. RAVAN. Mr. Moody, I would certainly like to submit a specific and more precise answer to your question for the record.

[Mr. Ravan's response to Mr. Moody follows:]

EPA RESPONSE TO CONGRESSMAN MOODY

INTERSTATE DISPUTE RESOLUTION

Question. What is the Administration's position on the Senate Interstate Dispute Resolution provision?

Answer. The administration opposes this amendment as redundant and unnecessary. With regard to nonpoint sources of pollution, there are already mechanisms in place for controlling such sources where they adversely affect water quality, such as management plans under § 208 of the Clean Water Act. Point source pollution is regulated through the NPDES program. In addition, any state which objects to the issuance of a permit in another state may challenge such issuance through the public notice and comment procedures.

The Administrator currently has the authority to object to the issuance of a permit which would have adverse affects on the water quality of another state. Imposing a requirement that the Administrator mediate all disputes within 90 days of receiving written objection is unnecessarily burdensome on the Agency and would not achieve any environmental purpose.

Mr. RAVAN. I do recall that case, although I am not familiar with all the ramifications of it. I do not support the so-called Federal common law approach. I think it is appropriate for the State to have a common law.

As to the application of the case, having gone that far obviously in the judicial system, the EPA will be guided by it. I do not think it would be appropriate, at least for me at this point in time, to comment any further about what the Supreme Court has decided. We are obviously going to be guided by the decision.

Mr. MOODY. I agree. It is just that there was no statutory language to exactly cover that issue. The Supreme Court stands as case law unless and until there is statutory law put into effect. A provision permitting such suits is in the Senate language, so I am hoping the administration will take a point of view on that.

Of course, it is no secret that our point of view is that the Clean Water Act should be the governing body of law and that it would be really open season if you permit all sorts of common law court actions around the country; you would begin to have chaos. That is a self-interested point of view on our part.

I would hope you would focus on that and give us a written commentary later on when you have a chance.

Mr. RAVAN. Yes, sir, I will be happy to do so.

Mr. MOODY. Thank you.

[Mr. Ravan's response to Mr. Moody follows:]

EPA RESPONSE TO CONGRESSMAN MOODY

Question. Does the Administration support amendments of the Act which reinstate federal and/or state common law remedies taken away by *Illinois* v. *Milwaukee* and *Sea Clammers*?

Answer. Two 1981 Supreme Court cases held that the Clean Water Act created a comprehensive, all-encompassing scheme for control of water pollution that preempted any federal common law remedies which might previously have existed. In *City of Milwaukee* v. *Illinois*, 451 U.S. 304 (1981), Illinois alleged that Milwaukee was polluting Lake Michigan with overflow of untreated sewage and inadequately treated effluents. Relying on the federal common law of nuisance. Illinois sought the imposition of more stringent effluent limitations and standards than those required in permits issued under the Clean Water Act. The Supreme Court held that no federal common law remedy existed.

This ruling was subsequently reaffirmed in *Middlesex County Sewage Authority* v. *National Sea Clammers Ass'n.*, 453 U.S. 1 (1981) where an organization of fish and shellfish harvesters sought declaratory and injunctive relief and compensatory and punitive damages for alleged harm to fishing grounds caused by sludge and other waste. The court held that the federal common law of nuisance has been fully preempted in the area of ocean pollution by the Clean Water Act and the Marine Protection, Research, and Sanctuaries Act, and that only expressly authorized citizen suits could be maintained.

In two later cases, *Scott* v. *City of Hammon* and *Illinois* v. *Milwaukee* ("Milwaukee III"), the Supreme Court was asked to decide whether the Clean Water Act preempted the availability of a suit under the law of one state to abate an out-of-state point source discharge into interstate waters. The Seventh Circuit Court of Appeals had concluded that the Act did preempt the application of one state's law to pollution discharges occurring in another state. The Supreme Court denied certiorari in *Scott* and *Milwaukee III.*

The Administration does not support an amendment to the Clean Water Act to create a federal common law claim for actions addressed by the Act. Nor does the Administration support an amendment to the Act which would permit suits under the law of one state to abate an out-of-state discharge into interstate waters. Such amendments would undermine the policies underlying the Act's comprehensive federal scheme for controlling interstate water pollution. A federal common law remedy could result in inconsistent and conflicting judicial determinations of remedies to water pollution, leaving the regulated community and affected citizens in a state of uncertainty. The Clean Water Act provides a comprehensive long-range policy for the elimination of water pollution; further federal remedies are neither necessary nor desirable.

In addition, permitting states to apply state law to abate out-of-state discharges will significantly impair the federal government's ability to carry out a national pollution control policy. The Act creates a federal-state partnership in the area of interstate water quality. The federal government establishes threshold pollution control requirements subject to state decisions to adopt more stringent limitations through state administrative processes, or establish such limitations through state nuisance law, and apply them to in-state discharges. Under this partnership, the states must defer to the federal government's choice of minimum national requirements, but they retain the unqualified power to determine to what degree they wish to impose more stringent limitations within their borders. If one state may impose its limitations beyond its borders, this balance of federal and state roles is destroyed.

A state, of course, retains the right to impose its public nuisance laws to discharges within its own borders as well as the right to challenge out-of-state discharges in the state where the discharge occurs. The *Scott* and *Milwaukee III* cases did not raise the question of whether a state law remedy might remain for damages caused by an out-of-state discharge, and that question remains to be decided by the courts.

Mr. Roe. The gentleman from Minnesota.

Mr. Stangeland. Thank you, Mr. Chairman.

I would like to recognize the gentleman from Texas, Mr. DeLay at this time.

Mr. DeLay. Thank you, Mr. Chairman.

I am sorry I missed your opening remarks, Mr. Ravan, but I read your testimony with great interest. I have a couple questions that I would like to ask.

With regard to section 25, I am troubled by the ease in which the administrative penalties can be assessed and to what extent this may reduce the incentive of EPA to exercise the discretion it has traditionally applied in deciding what violations on which to focus. This is particularly troublesome to me with respect to the very large facilities, many of which are in my district.

We all know that the NPDES permit limits are set to achieve a compliance rate of from 95 to 99 percent, meaning that by design there is going to be a certain number of violations even in a well-run facility. A cap of $75,000 for each violation series still has the potential to run into hundreds of thousands of dollars per month in fines considering the total potential violations for a large facility.

At this level, aren't we really getting beyond what should be the subject of an administrative penalty parking ticket type fine? When such penalties exceed a certain total level, for example, in a month, shouldn't EPA have to go to district court in fairness to the permittee?

Mr. RAVAN. Mr. DeLay, I will ask Ms. Hanmer to join me at the mike in just a second to address your point with regard to the administrative aspects and development of a record and the bases on which the administrative penalty might be administered in the future.

We do agree with you. It would be our intent in the future as we develop regulations and guidance to carry out this administrative penalty provision with great care and judiciousness.

I want to represent here today to this body, that the Environmental Protection Agency, and I believe the States as well, need this provision as a part of our tool kit to carry out the provisions of the act. We have not had this tool available to us under the Clean Water Act as we have had in other statutes. I believe our record of judicious application, as you pointed out, is a good one with regard to the application of other laws such as FIFRA. You raise an operational question. I would like Ms. Hanmer to comment on the safeguards.

Mr. DELAY. Before she goes to that, I would like to ask another question that she may be able also to answer. I have in my district, for instance, a manufacturing facility that must report 19,000 different measurements in a year, each one having a permit limit that it must meet. With regard to section 25, shouldn't the Administrator be required to take into account the statistical compliance basis upon which a permit is written when assessing a civil penalty?

Mr. RAVAN. That is yet to be developed. Let us examine the record to date with regard, first, to development of those permit conditions. I believe what they have done is to take the number of conditions, the number of observations, and multiply them by 365 daily occurrences. That way you can get a big high number.

But, yes, there is a need for safeguards. I don't believe that argues against our ability to administer such a provision.

Ms. Hanmer.

Ms. HANMER. Thank you.

If I may, I would like to speak to the 95- and 99-percent compliance rate first. In setting up our effluent guidelines we set the technology bases for best available treatment and we have said that a well-operated plant in the category should be expected to meet the monthly average numbers 99 percent of the time and the instantaneous, maximum numbers 95 percent of the time. Some guidelines differ, but that has been the practice.

When we set a permit limit, however, which is for an individual facility, the permit limits are not statistically based. The discharger is expected to meet the permit limits at all times, and any exceedance is a violation.

However, for us to administer a system of statistical noncompliance would require such overburdening monitoring requirements that it would be, I think, totally unreasonable as far as the discharger is concerned.

We just do not have the kind of data base, and never will, that would allow you truly to say that 99 percent of the time or 95 percent of the time in real time terms people are complying.

The way we deal with, if you will, trivial or nonsubstantial violations by a well-operated facility is through the exercise of enforcement discretion. I think if you look at our record, the same companies of which you are speaking would have a record of when EPA has issued administrative orders against violations. We are basically talking about exercising administrative penalty authority against many of the same kinds of violations that we now have administrative order authority for. It is just that we would have a much more effective way of making our administrative orders stick by being able to impose some penalties along with them.

We do lay out in our administration proposal due process requirements such as an opportunity for a hearing. This would not be a casual process at all, but would be a very deliberate process, a very open process for assessing these penalties. We think it would be a very fair process.

Mr. DeLay. I have just one more question, Mr. Chairman.

Mr. Ravan or Ms. Hanmer, I want to give you the opportunity, because the EPA has been criticized not only by GAO but by environmental and public interest organizations, for its failure to bring enforcement actions in the face of widespread evidence, according to them, of permit violation.

Can you be specific in your response to this criticism a little more than what Ms. Hanmer was going over, and what steps are being taken and what progress is being made in an effort to improve compliance with the act's requirements?

Mr. Ravan. Yes, sir, I can. I will ask Ms. Hanmer to add any detail that might be helpful.

This is, in fact, the point that Ms. Hanmer made—enforcement discretion.

A one-time, nonnegligent violation is probably not a good subject for a Federal court case.

On the other hand, over the past 18 months EPA has reviewed the question of overall enforcement. We have found ourselves in a position to make some improvements and we have done so.

We have, for instance, cleared up what we call the backlog of permits. We are working on a redefinition of significant noncompliance, and we are saying, as of mid-1984, that any violation which occurs for two quarters in a row is significant and that it will receive mandatorily a formal enforcement action.

There is a gap, and again I want to stress the point, between an administrative order, which we can do at the present time with no penalty and a court case. I think that gap can be closed by the authorization of an administrative penalty authority for the Administrator.

Ms. Hanmer.

[Ms. Hanmer shakes head negatively.]

Mr. DeLay. Thank you, Mr. Chairman.

Mr. Roe. The Chair recognizes the gentleman from Minnesota, Mr. Oberstar.

Mr. **Oberstar**. Thank you very much, Mr. Chairman.

I really appreciate the effort that you have made over the past several years in standing firm on the integrity of our 1972 act and its predecessors and for scheduling these hearings to prepare further for markup on legislation to continue the Clean Water Act.

However, Mr. Ravan, I must say that I am very much in the position of the gods of antiquity. You are the messenger bearing bad news, and I am tempted to bring upon your head that ultimate punishment which was meted out in antiquity.

We made an agreement between this committee and the Senate committee in 1981, and with this administration, to dramatically cut back the construction grants program. The needs assessment in 1980, as I recall, was $118 something billion. It still stands at $110 billion. We agreed in 1981 to a 10-year, $24 billion program—far short of the needs.

But we were faced with a situation where we lost. The administration had the votes. They won. We were coming to grips with a new reality. We agreed on a $24 billion program. Now you are coming here with a 5-year phaseout and you are $6 billion short on that commitment. Even if the $118 or the $110 billion is 50 percent off, which I do not think it is, you are still coming up 50 percent short of that mark. This is breaking faith with communities all across this country.

In the same period of time the administration has supported tax legislation that has put a cap on industrial development bonds and phased them out at the end of 1987. Your testimony talks about alternative financing.

It says, "For their part, localities are beginning to develop diverse financing options as well."

I don't know of very many that have been successful. People in my district see two elements that are a great dichotomy in current events. The Defense Department pays $600 for toilet seats and, when you flush that toilet, on the community side they do not have enough to pay for the sewage treatment plant to accept what has been flushed.

What reason is there, given cutback in construction grants, elimination of IDB financing, what reason is there for the private sector to put an investment into sewage treatment plants and associated facilities? Have you looked at that? What answer do you have?

Mr. **Ravan**. Yes, sir; we did look at that in our study of last year. We found that there are two basic elements that need to be present. First, and most importantly, there must be two partners, a private and a public partner, who really want the private sector to initiate a construction program in their city. Second, obviously—and I think your comments make this point—there must be a willingness for a rate structure in the local community to support that program. Without either of those elements, of course, the private approach would not work for any of our cities and towns. In some cases where most of the construction is already in place the same may not be true.

Mr. **Oberstar**. Well, I look at a little community of Ely in northern Minnesota and want to know, what are you going to say to

Ely? How are you going to help them finance a commitment to that community with this drastic cutback—$6 billion short?

Mr. Ravan. Mr. Oberstar, there are perhaps three ways in the short term for that city to receive some help. If is does not have part of the so-called segmented project, the grant structure would not be an option under the administration proposal.

If States put in place—and I must emphasize State—revolving program, or a loan bank, or some of the other approaches that we are beginning to see across the country—for example, Ohio and some of the other States as well have helped to fund these programs in the past—that might be an option for the local community.

We are, in fact, confronting a very difficult philosophical question here, and your points are well taken.

Finally, for Ely, the citizens of that town are paying some sort of Federal tax load, I'm sure. That Federal tax load in this case is financing a wastewater treatment program for the Nation. Hopefully, they would also be willing to recognize a local charge that would over time pay for the same wastewater treatment program that they are now paying for with their Federal tax dollars.

Mr. Oberstar. You come here in all good faith as a respected professional in this field, and I do respect you and the service that you have provided because you have come here on mission impossible. I say these things in all honesty—not honesty, in all earnestness—so that you folks, when you are asked by OMB to give blood, that you stiffen your back and say, "We can't take that message to Congress because they aren't going to like it and they are going to shoot it back at us."

I gave you one example of one community in my district. They have 18-percent unemployment. They carry another unique burden. They are on the edge of the Nation's largest and only water-based wilderness area, and the water that goes out of that sewage treatment plant has to be extraordinarily pure because it is going into lakes from which you still can drink water directly without treating it in that wilderness country. So they bear an extra burden of responsibility. What you are doing is just cutting them adrift and saying, "Sorry, we aren't going to help you."

Now I want to take that thread and go the next step into the permitting. Administration testimony here talks at great length about penalties, civil and criminal penalties, a tougher system that you are going to have, but you combine a $6 billion shortfall of an already inadequate $24 billion program with the limitations in the private financing field that communities are not going to be able to get the money outside of the grant program to meet their requirements, and the pressure is going to grow on State agencies and on the Federal EPA to backslide, to relax. There has already been a court case in which there has been some recognition that, while lack of grant money is not an excuse for noncompliance, that it represents some very good reasons for exceptions. The pressure is going to grow.

Then you propose 10-year permits and within that period of time, no adjustment to upgrade discharges to comply with technological advances or desire for improving. You are going to see a slippage in this program, I fear, back to stream standards. There already is some effort to trade off—if one industry shuts down, to use its capacity to shift to somebody else to carry what the stream can bear. I don't think that is the way we want to go in this country.

The financial cutback is going to have an impact on the permitting side, and that is going to be to the detriment of the goal of clean water. Let us remember what that 1972 act sets as objectives for the Nation.

Mr. RAVAN. Mr. Oberstar, I cannot and I don't take issue with some of the difficulties that you have laid out. I would simply make one or two comments, again just for emphasis.

We have no intention of backing off on standards. I think we have fought our way through that some 24 months ago. I hope we have established a record with the Congress that would bear witness to the fact that that is not our intent nor our desire.

On 10-year permits, yes, I am in agreement with the need for a 10-year permit, but that does not mean that that 10-year permit is a fixed instrument. We would reopen that permit on a needed basis—change of standards, new requirements, change of treatment requirements on a national basis, and so forth. We would not hesitate to do that.

Finally, yes, it is going to be difficult for the municipality to comply. However, the law established a compliance date first set for 1977. That date has been moved by administrative or judicial action. Where those cities and towns can show, either by the physical characteristics that you describe or perhaps financial hardship, I believe we would be able to work with them. As long as the town and the courts and EPA can agree on a compliance schedule, I believe we can resolve the problem.

Mr. OBERSTAR. What is the permit backlog now pending at EPA and do you feel you are still able to meet a recent statement that the EPA will be able to dispense with that backlog by the end of 1986?

Mr. RAVAN. Yes, sir; I do agree with that for all major permits that the EPA has responsibility for. I believe there will be a need for the States to work very hard to make the same deadline for EPA, as we complete our workload, to go into the States and help them so that they can reach the same goal.

I am confident on the EPA side; I am not so confident on the States' side.

Now when we turn to what we define as minor, lesser permits, no, sir, we will not make these same deadlines. Perhaps in another 2 years we can clear up that backlog.

Mr. OBERSTAR. You responded a moment ago to my question about reopeners, but left it is somewhat vague. I was reading in your intent that there would be reopeners for upgrading, but I hope you did not also mean that, because your statement or your response was not precise, that there would not be reopeners for downgrading of effluent standards.

Mr. RAVAN. I can't think of a case for backing off. What my statement was intended to address was the tightening or the changing of requirements for those permits.

Ms. Hanmer has a comment.

Ms. HANMER. A limited exception might be for instance, where an applicant has applied for a variance and the variance has subsequently been granted. That would be a case where there might be a change.

Mr. **Oberstar**. We have the situation of the Allied Paper Co. in Michigan which has been discharging into the Kalamazoo River. Under the Clean Water Act, both industry and municipalities cleaned up the discharges, the fish returned, water quality meets or exceeds water quality standards. Last spring, a year ago, the old permit expired. Allied Paper argued that since water quality was better than what is required to meet water quality standards, their new NPDES permit should allow increased discharges of BOD and total suspended solids.

That would allow the papermill to route some of its wastewater away from the new publicly owned treatment works and dump it back into the river—savings in their sewage use charges to the company and more pollutants for the Kalamazoo River.

There has been a great deal of back and forth between EPA and the Michigan DNR. The regional EPA originally said that this is backsliding, and then they waffled and the Michigan DNR asked for clarification. That has not been clarified. The State has taken a strong stand to resist the company's demands.

That is the kind of situation that I worry about when you have reduced funding, increased pressures, 10-year permits, a slippage in this program. We may not always have a Jack Ravan running the show.

Mr. **Ravan**. Thank you, Mr. Oberstar. I believe I will leave that one alone. As for myself, I do appreciate your confidence.

I am not personally familiar with that particular Allied permit, but I certainly will look into it. I want to assure you that cleanup that is achieved not written away in a new permit, but let me look into that for you, Mr. Oberstar, and get back to you in writing.

Mr. **Oberstar**. I am just raising the caution flags now and my real concerns about the future of this program.

Thank you very much for your responses.

[Mr. Ravan's response to Mr. Oberstar follows:]

EPA Response to Congressman Oberstar

ANTI-BACKSLIDING

Question. What effect does the anti-backsliding policy have on the reissuance of the NPDES permit of Allied Paper Company in Michigan?

Answer. The Allied Paper Company permit expired in 1979. Originally, the new draft permit proposed less stringent permit limits (as compared to the expired permit) for certain pollutants. Upon further consideration, these proposed less stringent permit limits were withdrawn and replaced with more stringent requirements. The primary reason cited for the change was application of the anti-backsliding policy. At first Allied objected to the more stringent quality-based permit limits; however, the permit was reissued with these limits and Allied has not appealed the reissued permit.

EPA's anti-backsliding policy prohibits reissuance of permits with limitations, standards and conditions less stringent than those in the previous permit, incuding water quality-based limits, except under certain specific circumstances. With regard to water quality limits, limits in a reissued permit can be changed to reflect, for examples, a revised waste load allocation or an increase in assimilative capacity. However, under EPA's water quality standards program, the anti-degradation policy must be satisfied, i.e., existing in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. In view of this anti-degradation policy, no change to permit limits can be made where it would result in an existing use not being maintained and protected.

In the Allied situation, the existing water quality is better than the water quality standards applicable to Allied. Thus, unless the less stringent permit limits Allied sought would have fully protected the existing use, they could not have been incorporated into the reissued permit.

Mr. ROE. The Chair recognizes the gentleman from California.

Mr. PACKARD. No questions.

Mr. ROE. The gentleman from Pennsylvania.

Mr. EDGAR. Thank you, Mr. Chairman.

I want to thank my colleague, Mr. Oberstar, for asking the questions that I wanted to ask, because it saved a lot of time.

I wonder if you could answer a very simple question for me; that is, is there a Federal role in wastewater treatment and, if so, what is it today and 5 years from now?

Mr. RAVAN. Yes, sir, there is. There is a need for basic cornerstones of this act to be carried out and oversight by the Federal Government of first, national standards and, enforcement of compliance with the requirements of this Act.

I would like to add to that I believe there is also a need for research and development, the transfer of technology or transfer of knowledge by the Federal Government to help meet the requirements of the Act.

Mr. EDGAR. In your statement you are saying that the cornerstone of this act is standards, compliance, and research and development. Are you indicating to the committee that there is no Federal role, or should there be a Federal role or responsibility in helping to fund any of the programs at the State or local level?

Mr. RAVAN. No, sir, I am not saying that. I was indicating what I believe are primary Federal responsibilities. There is in the law, as the chairman has eloquently pointed out, not only a commitment, but a tradition. Some of the programs have been very beneficial, and we are supporting continued funding.

Mr. EDGAR. If you look at the chart from 1980 down, it looks like the funding levels at the Federal level are going down. The need seems to be staying constant or increasing, and it sounds like the administration, through the Office of Management and Budget, is really saying, as you said, fairly accurately, that the Federal role is in standards, compliance, and research and development. If we have to build MX missiles and B-1 bombers and neutron weapon systems, and if we are not going to raise taxes, and if we are going to keep entitlements the way they are, and if we are going to pay our interest on our $2 trillion of debt, you're saying that one area that the administration can find efficiencies is to place back on State and local governments either the entire burden of funding for clean water or at least the primary share of that funding and reduce the Federal responsibilities. Isn't that what we should get from the last 4 or 5 years of program developments?

Mr. RAVAN. Mr. Edgar, the administration's national priority setting role clearly is a function, at least in part, of the submission of the President's budget. I personally am not able to address the national defense issues which you pointed out. I clearly believe that is a first purpose of the National Government. Whether we are offsetting by downgrading or taking away funding of the wastewater treatment program clearly is the focus of debate. We have submitted a bill that says we would go forward with $6 billion more for the next 4 years, whereas the Congress would provide more than that for a longer period of time. For my program, I believe that is where the debate is properly joined.

I am not deluding myself. I would not be surprised if the averaging that takes place in the political arena will take place in this case.

Mr. EDGAR. In the measure that passed the full House last year dealing with this subject, the chairman of this committee, working with a number of us, had a very innovative proposal within that legislation for a loan fund where both principal and interest would be retrieved to the Federal Government in a revolving loan fund or to the State governments I guess it was in this program, and that this loan ability given to the States would help to finance facilities for some of the communities similar to those that Mr. Oberstar was concerned about.

Do you have an opinion about whether or not the waste water treatment program should have a loan component?

Mr. RAVAN. Mr. Edgar, obviously I cannot support a Federal loan program. I do believe, both personally and professionally, and the Environmental Protection Agency study found as well, that what we called a State Revolving Fund— and I underline or emphasize the word State was a very apt and appropriate idea, especially at this time.

The Federal Government, through the Clean Water Act, has appropriated at the present time some $40 to $44 billion of investment in this program. It has achieved a certain measure of success. To go forward now with a revolving fund of the type that you mentioned or of the type that we found in our study certainly is an appropriate vehicle for the continued building of the wastewater treatment plants.

Mr. EDGAR. If our problem at the national level is these enormous deficits, wouldn't it make sense in the wastewater treatment area and in the water supply area to have a loan component so that both principal and interest could be returned to the Federal Government for the investment made and with a little bit of seed money from the Federal Government provided to the States through a Federal loan program, wouldn't we in fact reap more than we reap by simply taking money out of the Treasury at a time of high debt and deficit and investing it at 100 percent funding or 80 percent funding or 55 percent funding for Federal programs?

Mr. RAVAN. I have no disagreement with that approach, Mr. Edgar, except with respect to the appropriation level. If we are, in fact, trying to cut off the flow of funds from the National Treasury, it seems to me that your position would be even more appropriate at the State level. With a State Revolving Fund both principal and interest could return to the State fund and thereby be reapplied on a continuing basis as a State may dictate, having nothing to do with the Federal Government.

Mr. EDGAR. But the Federal Government does have a responsibility. We are a Nation of competing and different States and interests. You have testified that for standards and compliance and research and development we need to coordinate our effort. If the Federal Government could find a few dollars to provide as seed money, it would be an investment that we would make, and much of that investment would be returned and could be returned to the Federal Government or used in the future for additional projects, and the local communities could bond or pay over the life expectancy of that project both interest and principal, getting us away from the deficit situation we are in.

Let me ask you another question. Why go to a 10-year permitting program at a time when you want to change the compliance deadlines, reduce the funding, and rearrange the program? Isn't this the very time, when you want to make a major shift or change in the way in which the program works, to stay with the five years, so that you could monitor the effects of your changes as you go along?

Mr. RAVAN. No, sir, I don't think so. Based on experience to date first with respect to the technology base and then the BAT permits or best professional judgment issued permits, the 5-year permit tends to keeps us as well as the States, in a constant chase to get that permit issued, and then reissued.

The second point is that the 10-year permit is not a fixed instrument, as I mentioned in my earlier testimony.

Third, looking ahead of us, we do have some 24 guidelines for BAT treatment now. The issuance of the permits with 10-year per unit terms might, in fact, result in improved performance over the present term of 5 years which causes us to continuously chase a backlog.

I think Ms. Hanmer has a comment.

Ms. HANMER. One point I wanted to speak to was the impression that we would issue all permits with 10-year terms. That would be very undesirable from our point of view.

The full 10-year term would be basically available for minor permits or permits that did not contain any significant toxic discharges. We would see this as a vehicle for setting permits for staggered terms from 5 to 10 years to enable us as program managers to even out the workload and to try to clean up an enormous backlog of minor permits.

Mr. EDGAR. Let me ask a final question, and I apologize to my colleagues for taking so long.

On page 11 of your testimony, where you talk about permitting, what assurances do we have that July 1, 1988 you will have in place the guidelines that we have been waiting for and waiting for and waiting for? What assurances do we have every time you come before us and say we have to extend the deadlines that those are, in fact, in your mind deadlines and we can have some evidence?

You seem to me as an agency to be a little bit like how I was in doing term papers in college. I stayed up all night the night before and did them. In your case it is similar, except that you keep coming back and asking the professor to put off the time at which the paper is due. It seems to me that you have had scientific information, you have had experience, you have had knowledge, you have had research, you have had ability, you have had staff. In fact, you had more staff at one time. Now you are suggesting that you can do it if we just give you longer to do it and it won't have very much negative impact of putting off these deadlines.

Mr. RAVAN. Mr. Edgar, I am sympathetic to your comparison and to our past performance. I think probably the agency would have to get something like a D triple minus or an F triple plus for our past performance.

However, I hope that the Congress will be encouraged by our performance over the last 18- to 36-month period. We have invested, as you point out, increased resources. We have published under guidance even by the court in this nonperformance area. We have published 23 guidelines. We think there are not more than 30 in that round, the most difficult being the chemical industry guideline. We will come out next year with that.

I am committed to that timetable. I believe the pieces are in place. The only thing that would change my statement obviously, would be a lawsuit challenging a particular remaining guideline which might drag that particular guideline out for a bit. But I do believe we now have the guidelines in place. Only a few more remain to be done. I believe that the 1988 deadline should be put into the act and we should be held to that.

Mr. **Edgar**. From the midsixties, the Veterans' Administration came before the Veterans' Committee, on which I serve, and asked for a 3-year extension of their ability to contract out services to provide health care to veterans in Puerto Rico. Every 3 years they came back to us asking for reauthorization of that program. There are no more facilities in Puerto Rico now than there were in 1965. What the VA does is every 3 years comes and asks for the authorization to do it in a haphazard way as opposed to really dealing with it carefully.

I get the same feeling here, and I appreciate the work that has been done over the past year or so, but it seems to me that maybe we in Congress need to give you a shorter string and not give you the luxury of just simply coming back over and over again and saying it cannot be done. It can be done. You showed that it could be done. There is no reason why on July 1, 1986 it is not all done. It takes a little bit of work and a little bit of effort and a little bit of energy. To wait 2 additional years, until July 1988, is 2 years too long, I think. For the sake of future generations, we ought to get about the business of deciding what the national standards, the national guidelines will be.

Thank you, Mr. Chairman.

Mr. **Roe**. The Chair recognizes the gentlelady from Connecticut.

Mrs. **Johnson**. Thank you.

This is a subject that I wish to pursue further.

First of all, I think you should have a chance to respond to my colleague from Pennsylvania. Why can't you comply in 1 year rather than 3?

Mr. **Ravan**. Mrs. Johnson, thank you.

Mr. Edgar, I do believe there was some misunderstanding. Perhaps I was not articulate enough.

We are not asking for performance of the Agency to be extended. The guidelines work will be completed in mid-1986.

Mrs. **Johnson**. In other words, the five sets that you have not done will be finished by mid-1986?

Mr. **Ravan**. Yes, ma'am; based upon past experience we are simply asking for time for those industries to comply; that is, to put the treatment works in place. That is what we are asking for.

Mrs. JOHNSON. You are convinced that there can be industry compliance by 1988?

Mr. RAVAN. Yes; the administration provision actually has three parts, which one of my colleagues can point out to you, if you would like. As my testimony pointed out compliance dates are set for guidelines issued prior to July 1, 1985, as well as after that date, and finally that compliance be achieved not more than 3 years, in any case, after the final publication.

Mrs. JOHNSON. You refer in your testimony to the current statutory language and the fact that under that language you were issuing permits that require immediate compliance, even though that is not possible and it is not the fault of the permittee. Are you, in fact, doing that?

Mr. RAVAN. Yes, Ma'am; we are.

Mrs. JOHNSON. What is the legal situation, then, that you are putting the permittee in, because they are now legally bound to meet standards they cannot meet? Have you had any court challenges?

Mr. RAVAN. Let me ask Ms. Hanmer to give you any statistics we may have on court challenges. Yes, you point out what to us is an onerous situation, but the date for compliance—not issuance of the guidelines—is well behind us now.

How do we deal with that? We have dealt with it, I think, as reasonable people would, issuing orders, permits, for compliance based upon a reasonable achievement date. In fact, enforcement orders in some cases simply to address both issues: First, you are out of compliance and, second, the date has already passed.

Ms. HANMER. That is correct. We would have no choice but to meet the statute and write permits for immediate compliance, which means that a compliance schedule for a discharger would have to be embodied in an enforcement order, either an administrative order in a good faith situation, for example, or in a court order.

Mrs. JOHNSON. But you have not included in your testimony today any proposal for a reform of that language.

Ms. HANMER. Our compliance deadline extension recommendations are intended to address that issue. That is what they are intended to do.

Mrs. JOHNSON. Will that allow you to issue permits, then, in a more flexible manner, only requiring compliance with those guidelines that are already adopted and in place?

Ms. HANMER. The compliance deadline extension says that for guidelines we have issued by July 1985 we could write a compliance schedule in a permit for up to 3 years beyond that date. For those guidelines that are not issued by July 1985, the permits could be written for up to 3 years following the promulgation of the effluent guidelines. Many dischargers can comply earlier than that, so the policy is compliance as soon as possible and in no case later than 3 years.

Mrs. JOHNSON. Would it be necessary to clarify retroactively in the language of that section of the bill that those who were not in compliance with their permits when things were not available, when they could not have been in compliance, are not liable?

The reason I bring this up is that we use the language permittee, but I represent people who are permittees and they are small family businesses. There are now many groups out there that are interested in suing people for not being in compliance. This is creating a catastrophic situation for some small businesses that I represent.

I think if we are going to extend the deadline, we need to be absolutely certain that the legal language is such that those who have been in this situation before the deadline was extended are not liable also. Do I make myself clear?

Ms. HANMER. We can change the permit. If the Congress adopts a new compliance deadline, we can change the permit.

Mrs. JOHNSON. Unless you go back and individually change each permit, that person will still be exposed.

Mr. RAVAN. Mrs. Johnson, your concern is real, but there would be a mechanism to address it. We could perhaps provide for a permit by rule institutionalizing what in fact the Congress has allowed that would extend those dates to conform with the new act.

Mrs. JOHNSON. Yes; I think that would really be very important, and I want to make sure that the language is such that you would be required to promulgate such a rule, and promptly so.

Mr. RAVAN. We would appreciate any clarifying language. Our intent is to do just as we have testified today.

Mrs. JOHNSON. OK.

Second—and the hour has dragged on, and I am not going to prolong the discussion, but there were two points raised that already have been discussed at some length, and I just want to comment so that you will know where at least this member of the committee is coming from.

I don't agree with you that the initial purpose was to build a certain number of treatment plants and therefore clean up the water. The reality is that in States you have to get on that priority list, and the big cities now have made it to the top of the list. What you are faced with, at least in my State, is the smaller cities, some of them with the highest unemployment, cannot attract new business until they rebuild their treatment plant or expand it or upgrade it. They are struggling to meet congressional demands. Their treatment plant was adequate years ago when they built it. It is still adequate if we had not changed the law.

I think that since we have been a part of creating new standards and creating the requirement to alter and improve, that we also must be a part of the partnership that funds those very onerous burdens of capital investments and congressional and regulatory requirements to comply.

I just feel that what I see out there is a huge small town problem, small cities problem, and those, because of some of our international competitive problems, are the very communities that are being awfully hard hit in many other ways.

I feel that we need to find some alternative in the sewer program to that which you have proposed.

Second, I feel that the Federal Government must take some responsibility for the well water contamination that we now are seeing ever more broadly. It is true that testing technology has improved more rapidly than other technologies, and so we know more about what pollutants might have been there a long time. However, many of those products were federally approved. Most of them were used in accordance with the directions. Indeed, it is again very small towns where people are well water dependent that are now facing the problem of contamination whose interpretation they are unable to soundly determine. They do not have the resources to be able to guarantee their people that this contamination is or is not dangerous to their health. At the State level and at the Federal level we don't yet know whether the test results that we are getting are really dangerous to human health or not in many instances.

I really think that the partnership has to extend to helping small towns to deal with the need, to assure the source of drinking water to families, whether that means more sewer connection money or whether that means activated charcoal treatment attachments, or whatever. However, while we should not take on the whole burden, at least until we get a better understanding of the extent and nature of the problem, we have to share those costs. So, we do have a different aspect of Federal participation in our version of the bill because I, for one, feel very strongly that you just cannot leave these towns out there saying, even though we approved the product, we take no responsibility for the fact that it might be lethal.

Thank you.

Mr. Roe. I thank the gentlelady from Connecticut.

[Mr. Ravan's response to Mrs. Johnson follows:]

EPA Response to Congresswoman Johnson

CITIZEN SUITS

Question. Recently there has been a large increase in the number of citizen suits under § 505 of the Clean Water Act. What are the kinds of issues being raised as a result of the citizen suits?

Answer. Under the Clean Water Act, we have recently received over 300 notices of citizen suits. Not all of these notices result in cases being filed.

EPA has funded a study on citizens suits by the Environmental Law Institute. It provides an analysis of the data on citizen suits and addresses many policy issues that have arisen as a result of the citizens suits. A discussion of issues addressed by the courts can be found in Part V; sixty-day notice process, standing, and government enforcement as a bar to citizen suits. In addition, courts have also addressed the following issues: statute of limitations, the use of discharge monitoring reports, and whether a citizen suit can address past violations.

The Administration is very concerned about the adequacy of the notice of citizen suits it receives and the possibility that private parties may attempt to enter into consent decrees in citizen suits that would purport to bind the United States in future enforcement actions. The amendment to section 505 of the Clean Water Act set forth in the Administration bill would rectify these problems by requiring that copies of complaints and consent decrees in citizens suits be served on both the Administrator and the Attorney General. This amendment will better enable the federal government to track citizen suits that have actually been filed and determine whether the intervention of the United States is desirable. The notice of proposed consent decrees will help to encourage more consistent enforcement settlements. Finally, the Administration bill clarifies that the United States shall not be bound in an action to which it is not a party.

The Administration is particularly concerned about private parties' attempts to compromise penalty actions against violators and/or divert penalty monies owed to the United States Treasury to private use. The notice provisions of the Administration bill will better allow the United States the opportunity to intervene to address these problems where appropriate.

Mr. Roe. The gentlelady from Maryland.

Mrs. **Bentley**. Thank you, Mr. Chairman.

I, first of all, would like to concur with the gentlelady from Connecticut on her remarks about the partnership, the continuing partnership, that it is the high cost, the burden that has been added on by Federal law, that is creating the problem for so many communities, and that we cannot just walk away from it.

Mr. Ravan, the EPA has made a commitment to help clean up Chesapeake Bay. What is the dollar commitment there?

Mr. **Ravan**. Mrs. Bentley, thank you.

We will provide for fiscal years 1985, 1986, 1987, and 1988 $7.25 million per fiscal year for cost sharing grants to States to clean up the Chesapeake Bay.

Mrs. **Bentley**. How much are the neighboring States pledged to put up?

Mr. **Ravan**. The States are to match these implementation grants at a 50 percent rate for a total of approximately $58 million.

Mrs. **Bentley**. So that is $80 million all together?

Mr. **Ravan**. Yes, ma'am.

Mrs. **Bentley**. Now one of the pollutants, one of the major sources of pollution in the Chesapeake Bay, is from leaking septic tanks of private homes on some of the estuaries. I am sure you are aware of that.

Mr. **Ravan**. Yes, ma'am. I am aware that, first, ground water contaminations and, second, the movement of that ground water into the Bay carries with it the threat from the individual septic tanks.

Mrs. **Bentley**. Now if we do not have any construction programs or construction grants for the future and these individual homeowners cannot afford to have sewage brought way out to where they live, what is going to be the answer?

Many of these people—I want to put this on the record—many of these people are retired folks on fixed incomes. They have lived in these houses 20, 30, 40 years. The septic tanks are now leaking. They cannot afford to replace a septic tank. They cannot afford to hook up privately to have miles of county sewage brought out there that they would have to pay for.

Are there any construction grants still available for many sewage plants?

Mr. **Ravan**. No, ma'am, not to my knowledge.

Mrs. **Bentley**. There is nothing left? There was at one time.

Mr. **Ravan**. Help for those kinds of situations you describe may be possible from EPA and other agencies.

Mrs. **Bentley**. For spending $80 million to clean up the bay, can any of that money be used in this fashion, would you think?

I see one of your colleagues shaking his head.

Mr. **Ravan**. I was trying to think of any absolute bar to such utilization of those moneys. So far we have not seen any proposal along that line.

I have a definite feeling that those kinds of dollars in that amount would not go a long way toward curing this particular problem.

Mrs. **Bentley**. Would you have one of your staff look into this——

Mr. **Ravan**. I sure will.

Mrs. BENTLEY [continuing]. And submit it for the record?

[Mr. Ravan's response to Mrs. Bentley follows:]

EPA RESPONSE TO CONGRESSWOMAN BENTLEY

Question. Under Administration proposal with very few exceptions no more construction grants funds will be provided to small communities. For those small communities with low income levels which are located adjacent to Chesapeake Bay, can the $40 million in Chesapeake Bay funds be used to help build wastewater treatment facilities? Are such funds likely to be used for this purpose?

Answer. The Administration's proposal would allow States to receive 50% grants for the purpose of implementing management mechanisms contained in a comprehensive State plan that describes proposed abatement actions. The Administration would be opposed to the use of any of these resources for the construction of small community wastewater treatment facilities.

Mrs. BENTLEY. Now if the Congress phases out the construction grants program, as the administration has requested, how much of an increase would be required in water and sewer rates to make up for the decline in Federal spending?

Mr. RAVAN. It will vary, Mrs. Bentley, almost directly with regard to two major factors. Certainly, there will be others, but I believe that two factors will drive that determination.

First of all, how much has been done so far? Typically, as testified to here today, both by the committee and by myself, the larger cities where there has been a more pronounced pollution load have received major construction grant awards and initiated cleanup programs.

Second, the size of the remaining work to be done is going to have a significant factor on the rates. Typically, there is an economy of scale in wastewater treatment plant construction in and of itself, having nothing to do with what went on before or what may go on in the future. In other words a smaller town rate may very well be higher than a larger city rate.

I can give you our numbers, at least as we know them, for the record. They would obviously vary with every State and locale.

Mrs. BENTLEY. I would appreciate having them.

Mr. RAVAN. Thank you.

Mrs. BENTLEY. Particularly Maryland.

[Mr. Ravan's response to Mrs. Bentley follows:]

EPA RESPONSE TO CONGRESSWOMAN BENTLEY

Question. What will be the effect of the Administration's proposed phase-out of the construction grants program on local sewer rates? Can you give some assessment of how this will affect large and small communities?

Answer. The effects of the Administration's proposal on local sewer rates and the effect on large versus small communities depends on a variety of local factors, such as: (1) the nature of current facilities, (2) the community's financial base, (3) the financial terms of a community's loans or bonds, (4) the construction technologies utilized, (5) the use of privatization options, and (6) the relative financial contributions of state governments.

With phase-out of the federal program, and assuming the same facilities would be constructed with 100% financing from local sources, local sewer rates will necessarily increase, with the amount of increase varying according to factors specific to each community (e.g., the nature of current facilities, a community's financial base and the financial terms on its loans or bonds, whether or not a project would have been eligible under the current program, etc.).

The information below is based on an in-house study using the 1982 Needs Survey. The amounts reported for annual household costs are based on a number of assumptions and should, therefore, be viewed as rough approximations.

Almost all communities with populations greater than 50,000 (60% of total population) only have needs for upgrading or expanding existing systems. Depending on funding level, their annual household costs would vary from $130 (at 75% funding) to $180 (at 0% funding).

The overwhelming majority (85%) of small communities with populations between 3,500 and 10,000 have needs limited to upgrading or expanding existing systems. Annual household costs would vary from $190 (75% funding) to $280 (0% funding) for these upgrades. Annual household costs for the relatively small number of communities needing new systems would vary from as much as $330 (75% funding) to $510 (0% funding).

For very small communities (less than 3,500 population) approximately half the systems require upgrade and half of the needs are for new facilities. Annual household costs would vary from $210 (75% funding) to $370 (0% funding) for upgrades and as much as $430 (75% funding) to as much as $720 (0% funding) for new systems.

The estimates for small communities are based on constructing relatively expensive mechanical treatment facilities to meet wastewater treatment needs. As noted above, this approach is frequently the most expensive approach for small communities. EPA recommends less costly facilities, using the most appropriate, simple technologies with low operations and maintenance costs for small communities. Such systems (including lagoons, cluster systems, onsite units, sand filters, and land treatment) can enable communities to more inexpensively meet the requirements of the Clean Water Act in the absence of Federal grant support.

Mrs. **Bentley**. We have another local problem in my district concerning clean water. That is where the military left a Nike site, had a Nike site, and it has been closed down. Apparently some of the chemicals in that have leaked down and into people's wells there.

Does the EPA work with the Army on projects like this?

Mr. **Ravan**. Yes, Mrs. Bentley, we do. We think the provisions of the Clean Water Act and/or any other environmental statute should apply just as well to those facilities.

The situation that you describe might very well qualify as a Superfund kind of project, but primarily the cleanup of those DOD facilities, both past and present, is a function of the Department of Defense.

Mrs. **Bentley**. While we are talking about DOD, let me ask another question.

The enforcement mechanisms in the Clean Water Act are generally applicable to both the portion of the program which EPA administers as well as that portion administered by the Secretary of the Army for regulating the disposal of dredge material under section 404. Could you describe whether administrative civil penalties would be available to the Secretary of Army for section 404 violations and, if not, why not?

Mr. **Ravan**. There has been debate on that point. Let me make sure I give you the correct answer.

They do not. The administrative penalties authority abides or is entrusted to the Administrator, not the Secretary of the Army.

Mrs. **Bentley**. With the Administrator?

Mr. **Ravan**. Yes, ma'am.

Mrs. **Bentley**. All right.

Thank you, Mr. Chairman.

Mr. **Roe**. I thank the gentlelady from Maryland.

The gentleman from Minnesota.

Mr. **Stangeland**. Thank you, Mr. Chairman.

Mr. Ravan, I want to touch first and follow up a little bit on Congressman Oberstar's points.

On page 3 of your statement you refer to the need to concentrate resources on completing what we have committed to fund as a result of the 1981 amendments. I am wondering what happened to the $24 billion, 10-year commitment that most of us understood was made in the 1981 amendments and that former Deputy Administrator Al Alm testified as recently as last year before our Appropriations Committee was still operative.

Mr. RAVAN. Mr. Stangeland, I have to report to you that that got caught up in the budgeting for 1986. I do not dispute the point with regard to the understanding that $24 billion over 10 years was the plan for the program. Quite honestly, as we have indicated in our testimony, the administration provides $6 billion for this program for the next 4 years and feels that after that, in deference to the deficit that we are all facing, the funding would be discontinued.

Mr. STANGELAND. I guess what you are saying is that this was not an EPA determination but rather an OMB determination?

Mr. RAVAN. Mr. Stangeland, this is the President's budget and we support it.

Mr. STANGELAND. OK. Let me touch on one other subject and then I would ask unanimous consent to submit some questions in writing, Mr. Chairman.

There is one other subject that I have a deep concern about and will continue to pursue, and I think I have pursued it with you to a certain extent.

In visiting with Mr. Thomas when he ascended to the Administrator's post of EPA, I expressed my concern on trying to come up with some form of a pretreatment opt-out or local equivalency, if you please. Maybe "local equivalency" is a better word. It seems as though "opt-out" is sort of a red flag that causes some people a great deal of heartburn.

The reason I am concerned is that there is a problem in the West, the Southwest, and maybe there is a broader problem, I am not sure. I had occasion to go out early in January to visit the treatment facilities in Los Angeles and Los Angeles County. Being somewhat green and naive, I said, "I don't expect you have much interest in pretreatment opt-out."

They said, "Oh, but we do, by all means."

They are experiencing severe corrosion problems connected partly, at least partly, to local pretreatment requirements. Evidently, hydrogen sulfide corrosion occurs in the piping systems because certain heavy metals, which would otherwise chemically react, are removed by pretreatment.

They are very concerned that, should they be required to have pretreatment, they could have a collapse of some of their large, concrete culvert systems underground, which would have to be repaired at great expense.

To prevent this corrosion, some of them actually have to add iron to the water to chemically tie up that hydrogen sulfide.

Isn't there a possibility of looking to some kind of a pretreatment or a local equivalency program? Is it really impossible to administer that?

Mr. RAVAN. Mr. Stangeland, the pretreatment program in the past has—and I think correctly so—been tagged with the description, "Well, this is impossible. We cannot administer it." There are several reasons for that. I think both of us are aware of the history.

However, I have become convinced over the past 18 months of the utility of the so-called Federal categorical program for pretreatment—the work that was done by the pretreatment task force. Many people and local governments participated in it.

Institutionalization has shown us that, one, yes, we can do it and two, that the program is making what I would call adequate progress at the present time. The folks in Los Angeles, Chicago, and some of the other places do have very good pretreatment programs. If the imposition of categorical standards causes that kind of impairment of the system, we want to look at that.

There may be two provisions whereby we could give them some assistance or, in fact, cure the problem. One would be the so-called removal credits for the substances that you have identified. I realize this is a subject before the Congress, and I don't want to press it, but if Los Angeles has a system that is so fundamentally different then we might have provision for some sort of variance.

Mr. Stangeland. I would hope that you continue efforts in that direction to at least establish some pilot areas to accomplish this, to see the feasibility of it, and not just continue to head down in the direction of treatment merely for treatment's sake.

I tend to think there is a tremendous amount of engineering, and I don't know if you would call it scientific or engineering expertise, out there; that the people who run those plants are probably as eminently qualified as some of the regional people and even some of the people right here in Washington.

I would just hope that, as we work toward a markup of this bill, that we might be able to establish some kind of a program that perhaps can save a lot of dollars out there and still have the goal that we all want, and that is the goal of clean water. I hope we can work together toward that end.

With that, Mr. Chairman, I would ask unanimous consent that Members be allowed to submit some questions in writing if they choose.

I thank you very much, Mr. Ravan, and I wish you well in your new endeavor.

Mr. Ravan. Thank you, sir.

Mr. Roe. With no objection, so ordered.

[Mr. Ravan's responses to Mr. Stangeland follow:]

EPA Response to Congressman Stangeland

Question. Which states did not use their I/A set-aside funds? What were the reasons in each case?

Answer. The 15 states and 5 other allotment holders losing FY 1983 I/A set-aside funds to allotment on September 30, 1984 are listed below showing the dollar loss and the loss as a percentage of the 4 percent mandatory set-aside.

States:

Colorado—$241,000 (88%)
Delaware—$260,736 (55%).
Indiana—$1,359,078 (58%).
Kentucky—$531,593 (43%).
Michigan—$3,099,107 (74%).
New Hampshire—$387,312 (40%).
Vermont—$59,380 (3%).

West Virginia—$39,380 (3%).
Connecticut—$1,055,796 (88%).
Hawaii—$723,286 (95%).
Iowa—$646,279 (49%).
Louisiana—$808,257 (75%).
Missouri—$1,527,582 (56%).
North Dakota—$59,580 (12%).
Washington—$1,413,910 (83%).

Territories and possessions:

Guam—$7,940 (12%).
Puerto Rico—$1,276,320 (100%).
Virgin Islands—$50,960 (100%).
American Samoa—$87,840 (100%).
Pacific Islands—$103,200 (82%).

These allotment holders gave the following information on the course of their loss when asked in May 1984.

The dominant reason for loss of fiscal year 1982 and fiscal year 1983 set-aside funds was a lack of enough projects high on the States priority list to fully use a mandatory 4% set-aside for 10% grant increases.

A majority of the losing allotment holders also stated that they anticipate using all of their fiscal year 1984 and future I/A set-aside because the October 1, 1984 change to a 20% grant increase reduces the demand for good priority projects by over 60 percent.

Mr. ROE. We want to thank you very much, Mr. Ravan, for your testimony and that of your colleagues.

We knew you were carrying a very difficult role this morning, and we respect and understand that. The Chair would like to wish you the best in all of your work in the future.

I think you have contributed considerably to the Nation's concern and interest in helping to resolve many difficult problems we have been placed with under the program. You are leaving, as far as the committee is concerned, under great credibility, and the Chair wanted to make that point.

Mr. RAVAN. Thank you very much, sir. I appreciate that.

Mr. ROE. In the meantime, we want to thank you very much.

The members have asked that we recess from 12:45 until 1:15 and return at 1:15. At that point we would take up the next panel, which is the environmental panel, and then we would go on to the business panel after that—I beg your pardon, the associations panel.

We will reconvene at 1:15. If I could ask the members and the participants to please return at that time, because we are going to start at 1:15 because we have a tight schedule this afternoon, we will be able to finish so that everybody can get home.

Thank you very much. The Chair calls a recess.

[Mr. Ravan's prepared statement follows:]

STATEMENT OF JACK E. RAVAN, ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. Chairman and members of the Subcommittee, it is a pleasure to appear before you this morning. I am pleased to be here to discuss this Administration's proposal to reauthorize the Clean Water Act.

We have learned a great deal about the problems of preserving and enhancing the quality of our nation's water resources since the passage of the Federal Water Pollution Control Act amendments in 1972. The basic strategy of that statute, namely the use of technology standards together with water quality standards has proven to be an effective approach to water pollution control. Remarkable progress has been made in the last decade or so. More, of course, remains to be done. As history has shown us, periodic adjustments to the Act are necessary to insure that we maintain our progress toward the achievement of the Act's goals in the most efficient and effective manner possible. To that end, members of this Subcommittee, members of the regulated community, and we at EPA share a common desire to set the course of water pollution control for the future and to establish the necessary procedures and mechanisms to follow it.

Based on our first-hand experiences, as well as our vision of the problems that confront the program, we believe it is time to review this program and focus on adjustments in several areas. I would emphasize, Mr. Chairman, that we at EPA believe the changes now necessary are not major alterations in the structure or strategy of the Act which would delay the program and result in serious resource demands. Rather, the focus of the Administration's proposals, with several exceptions I will discuss, is on technical refinement of the Act.

Perhaps the toughest issue before this Subcommittee, Mr. Chairman, concerns the direction and future of the construction grants program.

CONSTRUCTION GRANTS

I want to say first that the Administration's proposal for a $6 billion phase out reflects a concern with controlling the Federal budget deficit, a concern which all of us in government share. This deficit has produced a different fiscal climate. It forces us to make hard choices, and alter some of our time-tables. At the same time, I believe that the proposal provides a return to ultimate State and local self-sufficiency in the construction of municipal wastewater treatment facilities.

Briefly, the proposed changes to Title II would phase out the construction grant program over a four year period beginning with an authorization of $2.4 billion in FY 1986, followed by $1.8 billion in FY 1987, $1.2 billion in 1988, $.6 billion in FY 1989, and none thereafter. All funding would be restricted to the completion of currently ongoing phased or segmented projects. The reasoning behind this use of remaining Federal funds is to concentrate resources on completing what we have already started, and have committed to fund as a result of the 1981 Amendments. To be eligible, such projects must have been initiated prior to the FY 86 budget submittal and must require additional funding to complete remaining segments. To further ensure that Federal funds are directed only to the eligible costs under these amendments for such phased or segmented projects, the 20 percent Governor's "discretionary fund," which allows funds to be used for non-eligible purposes, needs to be eliminated from Title II. Similarly, the allotment formula used to allocate funds to States would be based on remaining phased or segmented project needs. Finally, other set asides should be discontinued. The plan is to devote the remaining funds as possible to finishing ongoing projects. Thus, no Federal funds should be set aside for new starts in rural areas or new innovative or alternative projects. Similarly, no Federal funds would be used for water planning activities. State Management Assistance (§ 205(g)) would continue, but should be limited to managing the construction grants program phase out. Section 205(g) funds would not be available for other purposes.

In light of the fiscal requirement to initiate and complete the transition to State and local self-sufficiency as soon as reasonably possible, we view the level of funding for construction grants and other programs contained in H.R. 8 and H.R. 1509 as unacceptable. Moreover, the House bills do not firmly set the stage for a phased Federal withdrawal, and thus could send the wrong signal to States and localities moving toward ultimate financial independence. For these reasons, as the Administration noted last year with respect to H.R. 3282, passage and enactment of a Clean Water bill this year could be jeopardized.

I would now like to discuss where we have been, and where we must go in terms of funding the necessary construction of municipal wastewater treatment plant facilities. As you know, the 1972 Federal Water Pollution Control Act Amendments (P.L. 92-500) changed the Federal role dramatically. Whereas previously States and localities were largely self-sufficient, both institutionally and financially, after 1972 the Federal government contributed the major share of monies (over $44 billion in appropriations) to assist localities in meeting new standards. At the time of enactment, however, Congress regarded the new Federal role in finding as temporary—to clean up existing water pollution problems and to put States and localities in the position to address future needs on their own.

In 1977 Congress passed major amendments clarifying the intent that States have the major responsibility to manage and implement Title II. The theory behind the 1977 amendments was that State governments, which are closer to the problems, should have the administrative capability to carry out their responsibilities. Gradually, the construction grants program grew into a program now recognized nationwide as an effectively managed delegated program, a true Federal-State partnership. We have much to be proud of in making this successful transition.

In 1980 even more far-reaching reforms in the program began to be discussed, which eventually led to the 1981 amendments to the Clean Water Act (PL. 97-117). These major amendments signaled that EPA's construction grants program was moving gradually from the prevailing high level of Federal financial involvement to a program focused on increased State and local self-sufficiency. The long-range implications of these amendments were significant. Funding eligibilities were limited so as to reduce the growing level of Federal financial commitment. To focus the grants program on existing rather than future needs, Congress generally limited Federal funding to completing the construction of facilities needed to intercept and treat wastewater discharges as prescribed by national technology standards and State waste quality standards.

Today, we begin the final phase of this transition to State and local self-sufficiency. For our States and cities, this presents a tremendous challenge. For the past 13 years, they have relied heavily on EPA. You will ask me: Are States and localities ready to become self-sufficient again, and what will be the Federal government's future role?

I am confident we can make this final funding transition. I do not underestimate the budgetary realities that States and municipalities will face in reassuming increased fiscal responsibilities as this transition proceeds. But, over the last few years, States and localities have moved a long way toward developing both the institutional and financial capability to address future needs on their own. Already, many States have acted aggressively in increasing the amount, diversity, and sophistication of their financial assistance programs for localities. In short, at this critical juncture in our program, State governments are discovering that their responsibilities have not only been increased but also have became more varied. In the future, State governments will continue to play the pivotal role in the construction program.

For their part, localities are beginning to develop diverse financing options as well. Some have turned to the private sector, which has recently shown an interest in long-term participation in the municipal wastewater treatment field. Other localities are examining different conventional and nonconventional financing routes. As required by the current Act, user fees are under examination, as are other options for funding of future growth, rehabilitation and reconstruction, and more efficient operation and maintenance.

In the coming years, EPA will support these initiatives to smooth the path ahead to self-sufficiency. We will advise and assist, in any way we can, the vast majority of responsible communities who are working to achieve compliance and self-sufficiency. Working with the States, we will use the enforcement tools you have given us to cause non-compliers to meet their permit requirements. Our municipal policy spells out just how we are proceeding to accomplish this objective.

There will always be some who will say that the Federal funding role ends too soon. But I believe that State and local governments have begun to assume full responsibility for wastewater treatment.

CIVIL ENFORCEMENT

Prior to preparing the Administration bill, we made a careful review of existing civil enforcement authorities under the Clean Water Act as compared with other environmental statutes. I want to highlight two changes that we are proposing to the Clean Water Act. These changes concern administrative penalities and the maximum daily penalty assessment.

At present, we basically have two civil enforcement options. The Agency may issue an administrative order requiring compliance by a violator, or the Agency may ask the Justice Department to file a civil action in the U.S. District Court for penalties and injunctive relief.

The Administration's bill would add a third option—authority for EPA to assess administrative civil penalties up to $10,000 per day per violation with a maximum penalty of $125,000. The option of administrative penalties is already available under many other environmental statutes.

Our intention is not to retreat from vigorous judicial enforcement. We need administrative penalty authority as a complement to our enforcement tools so that we can most efficiently and effectively assure compliance with the Clean Water Act. Many violations simply do not warrant the expenditure of judicial resources. But issuance of an administrative order, without penalties, has not proven powerful enough to motivate some violators or deter other similar violators. Our experience with other administrative penalty authorities, such as the Toxic Substances Control Act and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), proves that, used prudently in the right cases, this tool can be a strong force for achievement of quick compliance.

Administrative penalty authority particularly makes sense under the Clean Water Act. Often these penalty actions will result from self-monitoring. The factual issues will be straightforward enough that an administrative alternative to court litigation would allow the opportunity for an efficient method of resolving the matter. Our proposal includes the opportunity of more flexible hearing procedures that could be tailored to processing a large number of straightforward cases, while still ensuring procedural protection for the alleged violator.

There are differences between our administrative penalty provision and that contained in either H.R. 8 or H.R. 1509. For example, our provision allows a total administrative assessment of up to $125,000. Both House bills, on the other hand, have a $75,000 ceiling. We favor the higher amount because it will signal to the regulated community the importance which the Agency attaches to compliance and enforcement. The higher amount is often necessary to recapture the economic benefits of non-compliance by a violator. Our proposal and the House bills are basically similar with respect to court review. Both the Administration bill and the House bills require court review based on the administrative record developed in the Agency's administrative proceeding, not a new court trial. Under the Administration bill, review would be based on whether there was substantial evidence in the record of the administrative proceeding to find a violation, and whether the assessment of the penalty was an abuse of discretion.

Our bill would also raise the daily maximum civil penalty per day per violation for court actions from $10,000 to $25,000. In contrast, both H.R. 8 and H.R. 1509 would raise the daily maximum from $10,000 to $20,000 per day. We favor the higher amount of $25,000 per day because this is consistent with the daily maximum civil penalty assessments under the Clean Air Act, TSCA and RCRA. Enforcement consistency among the various environmental statutes should increase the regulated community's awareness of the importance of compliance.

CRIMINAL ENFORCEMENT

Under the Administration bill, the criminal penalties contained in section 309(c) of the Act would be increased. Existing misdemeanor penalties are retained for negligent violations. However, the penalties for knowing violations of substantive provisions of the Act (or of permit conditions and limitations) would be increased to felony level. Maximum fines for knowing first offenses are increased to $50,000, together with maximum terms of imprisonment of up to three years. Also, the maximum term of imprisonment for the knowing making of false statements, representations and certifications, or tampering with monitoring equipment required under the Act, would be increased from six months to two years. The provision doubling the maximum fine and term of imprisonment for second convictions under the same paragraph of the Act would be extended to this latter penalty.

The Administration bill contains a further important criminal enforcement provision not found in H.R. 8 or H.R. 1509. A new provision adopting from RCRA the concept of knowing endangerment would be added to section 309(c), providing for enhanced felony penalties for certain conduct which knowingly threatens "imminent danger of death or serious bodily injury." The substantial penalties for such conduct are equivalent to those contained in the existing RCRA knowing endangerment provision.

The Administration bill's new system of higher criminal penalties is roughly comparable with that now contained for similar kinds of conduct in RCRA, as that statute was recently amended. We believe that these penalties, applied to the more serious instances of wrongdoing which cause or threaten to cause significant environmental harm or which have significant impact upon EPA's ability to run an effective regulatory program, will have a substantial deterrent effect upon such conduct.

PERMITTING

NPDES permits are the primary control mechanism for achieving the majority of our Clean Water Act goals. Therefore, in developing the Administration recommendations we have attempted to identify those provisions most in need of amendment to enhance our ability to continue to effectively implement this successful program. Our bill contains approximately a dozen amendments which will help the NPDES program to face its new challenges.

The most important amendment in this group addresses the need for an extension of the BAT/BCT industrial compliance deadline. There is no question some kind of extension is necessary. The statute currently requires compliance by July of 1984. We are mindful of the fact that the Agency has not been able to promulgate all needed BAT/BCT effluent limitations guidelines. Moreover, EPA and the States have not been able to issue all the permits setting forth individual requirements. Because of the current statutory language, we must issue permits which require immediate compliance, even where that is impossible through no fault of the permittee.

To alleviate this problem we are recommending an extension that will realistically recognize the time necessary to issue guidelines and permits as well as providing dischargers with a reasonable period to achieve compliance. For limitations based on guidelines issued prior to July 1985, the outside deadline would be July 1, 1988. For limitations based on guidelines issued after July 1985, or for "best professional judgment" permits, compliance would be required no later than three years from promulgation or permit issuance, respectively. Of course, where compliance can be achieved prior to the outside date, that would be required.

Another amendment we are proposing which affects permitting concerns section 301(g) modifications for nonconventional pollutants. This amendment would ensure that variances are granted only in those instances where the Agency has adequate scientific information on aquatic life and human health impacts. This is important since many pollutants defined as nonconventional under the Act are in fact highly toxic. EPA's experience indicates that inadequate test methods and incomplete scientific information make it impossible to make the required findings under section 301(g) for many pollutants. This has led to inordinate delays, unproductive resource drains on Agency staff, and uncertain protection against toxicity. The Administration proposal specifies those pollutants for which we have adequate data to determine whether the statutory factors are satisfied. The amendment also gives the Administrator the ability to add pollutants to the list where a petitioner demonstrates the availability of satisfactory test methods and data make the necessary findings. This is appropriate in light of emerging scientific information in this area.

The balance of our proposed amendment regarding permitting are largely administrative and technical improvements and do not fundamentally change the structure of the NPDES program. For instance, in order to improve program efficiency, we are requesting authority to issue permits with ten year terms where that is appropriate. In another provision, we are seeking clarification of our authority to issue general permits. For several years, the general permit approach has been an effective device to deal with certain large categories of dischargers with identical control requirements.

We believe the adoption of these proposals will improve the NPDES program and help us obtain the success in the future that has been achieved in the past.

CONCLUSION

In conclusion, Mr. Chairman, I don't believe there are any easy answers to the questions now before this Subcommittee on the future of the Clean Water Act. I have attempted to address only a few of the proposals in the Administration's program. My staff and I stand ready to assist the committee in understanding the remainder of the proposals made and to continue our dialogue so that the directions of the Act for the future can be set and then achieved.

[Recess taken.]

Mr. Roe. The committee will reconvene.

We want to welcome the members of our environmental panel consisting of the Clean Water Coalition, which is a New Jersey chapter of the Sierra Club, represented by Mr. Ian Walker; New Jersey Public Interest Research Group, represented by Mr. Edward Lloyd; League of Women Voters of the United States, represented by Ms. Julia Holmes, accompanied by Mr. David Baker, legislative representative; the National Wildlife Federation, Mr. Mark Van Putten, director of the Great Lakes Natural Resources Center; and the National Audubon Society, represented by Ms. Hope Babcock, deputy counsel and director of public land and water.

We want to welcome you all to our hearing this afternoon.

I don't see Ms. Babcock here. She was here earlier. She will be back. Is she going to be the coordinator? She is separate from this group. I beg your pardon.

Well, what we would like you to do, for the record, all testimony will be placed in full in the record, and we would like you to summarize as you see fit your areas of interest. That way we can leave some time for dialogue and have a chance to review ideas and different thoughts you may be presenting.

Therefore, why don't I call on the first representative, Mr. Ian Walker, who is from the New Jersey Chapter of the Sierra Club?

TESTIMONY OF IAN WALKER, CHAIRMAN, NEW JERSEY CHAPTER OF THE SIERRA CLUB; EDWARD LLOYD, GENERAL COUNSEL, NEW JERSEY PUBLIC INTEREST RESEARCH GROUP; JULIA A. HOLMES, SECOND VICE PRESIDENT AND MEMBER OF THE BOARD OF DIRECTORS, LEAGUE OF WOMEN VOTERS OF THE UNITED STATES, ACCOMPANIED BY DAVID BAKER, LEGISLATIVE REPRESENTATIVE; MARK VAN PUTTEN, DIRECTOR OF GREAT LAKES NATURAL RESOURCE CENTER, NATIONAL WILDLIFE FEDERATION; AND HOPE M. BABCOCK, DEPUTY COUNSEL AND DIRECTOR, PUBLIC LANDS AND WATERS PROGRAM, NATIONAL AUDUBON SOCIETY

Mr. **Walker**. Good afternoon. Mr. Chairman, as you say, I am Ian Walker, chairman of the New Jersey Chapter of the Sierra Club. On behalf of the 350,000 members of the club, I want to thank you for this opportunity to discuss the reauthorization of the Clean Water Act.

The Sierra Club is joined with 12 other environmental and local government and private organizations in support of three amendments to H.R. 8, and our proposed amendments are as follows:

They would, No. 1, eliminate 10-year NPDES permit renewal period.

Second, add an anti-backsliding provision.

Third, add the control of nonpoint pollution to three construction grants set-aside programs.

A copy of our letter of March 11, 1985, from these organizations supporting the above amendments and written to you, Mr. Chairman, is attached to my testimony.

The amendments supported by our coalition are included in H.R. 1509, introduced by Representative James Oberstar, and H.R. 1509 is identical to H.R. 8, except that it addresses these amendments in which we are interested.

We also wish to thank Representatives Edgar, Mineta, and Moody for demonstrating their support for these amendments by cosponsoring H.R. 1509.

Because of the limited time, I would like to discuss in detail only one of these three amendments, and that is the anti-backsliding provision. Before making those comments, though, I would like to make just a few points about the NPDES permit.

We strongly oppose any amendment to the Clean Water Act that would weaken the law. The proposed extension of the permit term from 5 to 10 years, in our view, severely undermines the national commitment to clean water and should be opposed by the members of this subcommittee.

When the extension of the NPDES permit renewal period was originally proposed, the supporters of this change asserted that it would not undermine the permit process if sufficient "reopeners" were added. Reopeners would allow the permit standards to be strengthened during the term of the permit if the need arose.

Unfortunately, the protection reopener language is an allusion. If adopted, the result would be to put the brakes on our national commitment to clean water for these reasons:

One, at least 18 States only adopt or revise water quality criteria at the time the permit comes up for renewal.

Second, the States that already require permits to be reopened prior to renewal rarely do so.

Reopening the permit prior to its expiration date places the burden of proof for justifying new effluent limitations on the State. There is no question in our minds that by extending the NPDES term to 10 years we would be locking ourselves into 10 or more years of pollution at today's levels. In effect, this means 10 more years before the water quality standards would be reviewed and upgraded to reflect new water quality data or water quality problems.

As for my principal point, concern, that of backsliding, one of the basic premises of the Clean Water Act is that the law should never allow water quality to be degraded below its current condition. I do not believe that the Congress intended to allow the States to simply maintain the status quo in the cleanup of our Nation's waters.

With the apparent approval of EPA, backsliding from water quality-based standards and the granting of seasonal waters are becoming major problems. In effect, the assimilative capacity of rivers and lakes is becoming the determining factor when writing, renewing, reissuing, or modifying NPDES discharge permits. Unfortunately, H.R. 8 is silent with respect to the problem of backsliding from BPJ or BEJ limits and nationally uniform BPT or BAT effluent limitation guidelines.

If I could just demonstrate or dramatize a possible problem that could be created, if industry A, for example, or company A is required to clean up its effluent discharge in order to bring the river up to its State's water quality-based effluent standards, and if shortly after Company A has made the necessary investment, has met their discharge permit standards, suppose that Company B, a competitor located just across the river, comes up for its NPDES permit renewal. The permit writer, seeing that this segment of the river now exceeds the State's water quality standards, issues Company B an NPDES permit which is much more lenient than that issued to Company A.

Company A has been allowed, in effect, to benefit from the investment of its competitor across the river. While it is clear that the State permit writer has, in fact, adhered to the letter of the law by not allowing Company B to degrade the river's water quality below the established standard, he or she has violated one of the basic goals of the Clean Water Act by allowing the degradation of water quality.

In addition, thanks to this loophole in the Clean Water Act, Company B has been granted or has gained an economic advantage over its competitor across the river.

In other instances a major industry may be shut down, causing other industries along the same segment of a waterway to petition the State for an increase in their level of pollution discharges. Weakening the discharge standards because a river or lake is now cleaner or colder and, therefore, able to accommodate additional pollutants, is also not within the spirit of the Clean Water Act.

The State of Wisconsin, for example, wants to make backsliding a part of their water quality regulations, and their new water quality regulation would allow dischargers to turn off existing treatment facilities and increase pollution discharges to save operating and maintenance cost.

With the chairman's permission, I would like to submit that part of Wisconsin's regulations into the hearing record.

Mr. Roe. Without objection, so ordered.

[The following was received from Mr. Walker:]

ATTACHMENT TO SIERRA CLUB TESTIMONY OF APRIL 24
BEFORE THE HOUSE SUBCOMMITTEE ON WATER RESOURCES
REGARDING THE REAUTHORIZATION OF THE CLEAN WATER ACT H.R. 8

Attached is a copy of a regulation adopted last month by the Wisconsin Natural Resource Board. This regulation would allow dischargers to turn off existing treatment facilities and increase pollutant discharges to save operations and maintenance costs. This regulation graphically demonstrates why an antibacksliding amendment is urgently needed.

From mvr

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING AND RECREATING, AND CREATING RULES

. . . .

IN THE MATTER of repealing and recreating s. NR 212.11, and creating ss. NR 212.115 and NR 212.40(8) of the Wisconsin Administrative Code pertaining to water quality based allocations of pollutant discharges to waters of the state WQ-1-85

. . . .

Analysis Prepared by Department of Natural Resources

Chapter NR 212, Wis. Adm. Code, allocates to municipal and industrial point source dischargers amounts of the class of pollutants known as BOD_5 allowable in certain streams in the state. The principal changes involve procedures for temporary and long term reassignments of allocations between dischargers. The revisions to ss. NR 212.11 and NR 212.40 address reallocation of pollutant loadings from an entity no longer discharging to one or more existing dischargers, or resulting from rerouting of waste streams between municipal and industrial wastewater treatment plants. Section NR 212.115 provides for short term transfers of allocations between existing dischargers without need for any change in the actual discharges.

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 227.011 and 227.014(2)(a), Stats., the State of Wisconsin Natural Resources Board hereby repeals and recreates, and creates rules interpreting ss. 147.04(5), 147.05 and 147.25, Stats., as follows:

SECTION 1. NR 212.11 is repealed and recreated to read:

NR 212.11 MODIFICATIONS AND TEMPORARY REALLOCATION OF POINT SOURCE ALLOCATIONS. (1) When a discharger to a publicly-owned point source covered by this chapter applies to receive a separate WPDES permit or when a person with a WPDES permit applies to terminate its direct discharge in order to contribute to a publicly-owned point source covered by this chapter, permit modification procedures contained in ss. 147.025 and 147.03(2), Stats., shall apply. Any reallocation pursuant to such action shall only affect the applicant and the publicly-owned point source to which it discharges.

(2) Procedures for temporary reallocation for individual stream segments are identified in ss. NR 212.40 through 212.70. Notwithstanding procedures identified in ss. NR 212.40 through 212.70, temporary reallocation of wasteload allocations may be allowed under the following conditions:

(a) Reallocations approved by the department shall be for at least one calendar year and shall expire at the end of the affected discharger's WPDES permit term;

(b) Reallocations shall account for differences in waste characteristics and location of discharge as determined by the department; and

(c) Reallocations may not affect baseline loads in affected stream segments but may result in an adjustment to total maximum daily loads identified in ss. NR 212.40 through 212.70.

SECTION 2. NR 212.115 is created to read:

NR 212.115 TRANSFERABLE WASTELOAD ALLOCATION. (1) Transfers of wasteload allocations between point source discharges may be allowed through the permit issuance or modification process under the following conditions:

(a) The discharger applying to receive a transfer secures a legally binding agreement approved by the department, that the WPDES permit allocations for one or more existing dischargers shall be reduced by an amount sufficient to prevent the total maximum load under ss. NR 212.40 through 212.70 from being exceeded;

(b) The department shall consider the differences in waste characteristics and location of the affected point sources to determine amounts by which the existing point source allocations are reduced;

(c) Transfer agreements approved by the department shall be for at least one wasteload allocation season and may not extend beyond the term of the dischargers' permits.

(2) A transfer shall be nullified if the WPDES permit for any discharger which is a party to the transfer expires or is revoked due to the termination of the discharge or if the categorical effluent limitations of a transferring discharger are reduced to an amount less than that which has been transferred. Any nullification of a transfer shall be through the permit issuance or modification process.

SECTION 3. NR 212.40(8) is created to read:

NR 212.40(8) Reallocation of available wasteload allocations.

(a) Wasteload allocations may be reallocated under par. (b) when a wasteload allocated permit expires, is revoked or surrendered for the following purposes:

1. Provide for the wasteload needed due to the reactivation of a facility that had closed and made the wasteload available.

2. Provide the wasteload for new production increases by existing dischargers.

3. Provide the wasteload for production by a new discharger.

4. Provide for existing dischargers to raise their existing allocations in the appropriate stream segment towards categorical effluent limitation levels.

(b) The following procedures shall be used to reallocate available wasteloads:

Mr. WALKER. The State's new regulation—that is, Wisconsin's new regulation—says that a river's waste load allotment may be allocated when a waste load allocated permit expires, is revoked, or surrendered in order to provide for existing discharges to raise their existing allocations in the appropriate stream segment toward categorical effluent limitation levels.

As far as the State of Wisconsin is concerned, any time water quality improves beyond the minimum level needed to meet water quality standards, polluters can increase their pollution discharges. Again, we do not believe that this is how Congress intended the Clean Water Act to work.

A draft report to EPA, recently obtained through the Freedom of Information Act request, demonstrates that seasonal waivers are yet another way the backsliding loophole is being exploited by some States.

Of 46 States responding to a survey by the authors of this report, at least 29 States frequently use seasonal waivers. In many States it has become a common practice to grant industries and municipalities winter waivers that allow higher levels of pollution in their discharges. This usually happens during the colder months when rivers have a greater assimilative capacity.

This report by Urban Systems Research and Engineering of Cambridge, MA, lays out the extent of the States' use of the seasonal permits. If I may, this is a lengthy report. May I, Mr. Chairman, enter this for the committee's files.

Mr. ROE. With no objection, so ordered.

Mr. WALKER. The principal point that we would like to draw your attention to is the summary which illustrates the extent to which backsliding is taking place.

The continued use of backsliding is tearing a giant whole in our national water pollution cleanup effort. If we ever hope to reach the Clean Water Act's goal of achieving water safe for fishing or swimming, backsliding must be stopped. It is a bad idea. It is clear that we will never reach our clean water goals if the backsliding loophole is not closed.

The Clean Water Act needs to be amended so as to prohibit the weakening of NPDES permit discharge when they are renewed, reissued, or modified, and to prohibit the granting of seasonal waivers.

Now, we recognize that in some rare instances that the original permit may have been written without the benefit of adequate scientific data upon which to base the discharge standards. Therefore, when the permit comes up for renewal and the firm can make the case that the discharge standards were not scientifically valid, and the permit limits could be relaxed without causing damage to water quality, then an adjustment could be made. However, backsliding should not be allowed merely because additional assimilative capacity is available or because of changes in waste load allocations.

As I think Mr. Ravan put it this morning, the cleanup that we have achieved and are achieving should not be written away.

These are the major points that I wish to make. There are additional points in my testimony.

One point that is not covered in the testimony but which was mentioned in the March 11, 1985 letter to you from the 13 organizations, which I would be remiss in not mentioning, is regarding the committee's efforts on the funding for the Construction Grants Program. We applaud and wholeheartedly support those efforts. Without that, we are simply not going to achieve the goals and the objectives of the Clean Water Act.

Mr. Roe. I thank the gentleman.

Mr. Lloyd of Public Interest Research.

Mr. Lloyd. Thank you, Mr. Chairman.

My name is Edward Lloyd. I am general counsel for New Jersey Public Interest Research Group. I am testifying today on behalf of the United States Public Interest Research Group and a number of the State PIRG's that it represents. I am also testifying on behalf of the 37 New Jersey organizations—fishing, realtor, community, labor, and environmental groups—which represent the New Jersey clean water campaign.

We strongly support the retention of the 5-year national pollution discharge elimination system permit term, the inclusion of the antibacksliding provisions in the act, and the implementation of a strong nonpoint pollution program. These provisions are critically necessary prerequisites to the reauthorization of the Clean Water Act. Specifically, we support Congressman Oberstar's bill, H.R. 1509, which incorporates these provisions.

I, too, want to express our support and commendation to the committee's efforts for the construction grants increased funding. I think the committee well recognizes that without that funding we cannot achieve the goals of the act.

These provisions—and, indeed, any provision—of the Clean Water Act can become totally meaningless without adequate enforcement of those provisions. I would like to address the remainder of my remarks to the issue of enforcement of the Clean Water Act.

Enforcement cuts across every provision of the act, and the success of any program depends upon the adequacy of its enforcement. Tragically, EPA's enforcement record of permits under the Clean Water Act has been dismal, as is evidenced by GAO reports in 1978 and 1983 and by New Jersey PIRG's own report of EPA enforcement issued in 1981.

The 1978 GAO report found a high degree of noncompliance by permittees with discharge limitations. It also found a failure of permittees to submit the discharge monitoring reports, incidents of significant toxic violations, and that EPA enforcement response is neither timely nor strong. The GAO found that referrals to the Department of Justice for enforcement actions were infrequent and that barring violators from Federal contracts, grants, or loans had only been used for four facilities.

The 1983 GAO report, unfortunately, found the enforcement situation worse rather than better. The 1983 report concluded that noncompliance was widespread, frequent, and significant. Eighty-two percent of permittecs had one or more violations in an 18-month period while 31 percent were considered in significant noncompliance.

GAO also found that many DMR's were inadequate or not filed at all and that noncompliance occurred for long periods of time, both before and after enforcement actions were begun by the EPA.

Finally, they found that formal enforcement actions by the EPA were down 41 percent between the years 1980 and 1982.

PIRG's own report found enforcement in region 2 totally lacking. We found that the EPA virtually ignored 86 percent of the violations that were reported to it. When EPA did respond to those violations, the typical response was a warning letter issued 1 year on the average after the first violation had occurred, by which time on the average another four other violations had occurred.

We also found that the response rate for toxic violations was worse than the response rate for other violations, only a 9-percent response rate for toxic violations, and found that the response to major violations, as defined by EPA, was no better than for any other violation, a response rate for major violations of only 13 percent.

Given this massive noncompliance with permit limitations and the nearly total lack of enforcement of these limitations by EPA, we recommend the following amendments to the Clean Water Act to reduce noncompliance and to bolster enforcement:

First, give EPA the authority to administratively assess penalties for violations of the act. The authority for EPA to administratively assess penalties against violators in a quick, efficient, and effective manner may be the best and simplest method to improve enforcement of the Clean Water Act. Along with the authority to assess such penalties, citizens must be given the right to call for a hearing in such enforcement proceedings, to intervene and fully participate in EPA and State enforcement proceedings, and to seek judicial review of enforcement proceedings with regard to the adequacy of penalties as well as to the adequacy of other remedies.

Inherent in these citizen rights is the right to comment upon proposed consent orders between the agency and the permittee. In order that these citizen rights are fully protected, we recommend that no consent order should become final until an opportunity for notice and comment is given to the affected citizenry.

Finally, neither the existence of a consent order nor the assessment of penalties by the EPA should preclude a citizens' suit based upon the inadequacy of an administrative remedy or a penalty assessment or upon more recent violations of a permit.

Second, we would like the act to require regular publication of permit violations in well-circulated local newspapers. This requirement is similar to a provision in the Safe Drinking Water Act. It would alert citizens to violations occurring at the local facilities and would, therefore, give incentives for those facilities to strive not to violate the permits.

Third, we would like to permit EPA to delegate its onsite inspection authority to private contractors to perform onsite inspections on behalf of the EPA and under the EPA's guidance and direction. This would significantly expand EPA's enforcement authority by giving them the ability to conduct onsite inspections through contractors who have had difficulty obtaining access to sites in the past.

Fourth, provide an award or bounty of up to 25 percent of the assessed penalty for citizens who bring enforcement actions against violators of the act. This is similar to the bounty provision of the Rivers and Harbors Act of 1899. It would give citizens greater impetus to aid in the enforcement of the act beyond simply awarding them expert witness fees and attorney's fees.

Finally, prohibit chronic Clean Water Act violators from bidding on Federal timber, oil, coal, or gas leases. This would provide further economic incentives for facilities to strive to reduce their violations of the act.

We believe that the adoption of these enforcement mechanisms will go a long way toward significantly reducing the current widespread and frequent noncompliance with the Clean Water Act and that they will markedly improve enforcement of the provisions of the act by both the Government and the citizens. We urge you to seriously consider their adoption.

Thank you very much.

Mr. ROE. We thank the gentleman for his testimony.

I think we will recess for 5 minutes now to go vote. We will be right back.

[Recess taken.]

Mr. ROE. The committee will reconvene.

When we broke to vote, we had just finished the discussion by Mr. Lloyd. Now our next witness is Ms. Julia Holmes, who is representing the League of Women Voters of the United States. She is accompanied by Mr. David Baker, legislative representative.

We want to welcome you to the committee.

Ms. Holmes, please proceed.

Ms. HOLMES. Thank you, Mr. Chairman.

I am Julia A. Holmes, second vice president of the League of Women Voters of the United States. I am testifying today on behalf of a quarter of a million league members and supporters from across the United States.

The league has long been active on natural resources issues through the work of our 1,300 local leagues. Since the 1950's leagues have been concerned about the need to develop effective programs for water management, water planning, and protection of water quality.

Reflecting these concerns, many leagues in the 1970's worked closely with designated agencies in developing the comprehensive areawide water quality plans required by section 208 of the Clean Water Act.

As you know, the focus of these plans was on identifying sources of nonpoint pollution and potential methods of control, but since the Federal directive required planning only, not implementation, after years of work, the expenditure of Federal funds, many of the 208 plans ended up on the shelf.

As a result of their involvement in the 208 process, the league has been particularly aware of the water quality problems caused by the nonpoint source pollution and disturbed by the lack of action to curb this growing pollution source. We think that the program outlined in H.R. 8 with strengthening provisions could be a significant start in controlling nonpoint source problems. We commend Representative Oberstar of Minnesota for leadership on this issue.

We feel nonpoint source pollution is one of the most important issues facing this committee, and we will direct most of our remarks to this problem.

Nonpoint source pollution has long been recognized as a serious water quality problem, but because of the diffused nature of the problem, the many different sources involved, the wide variance in problems from region to region, and the site-specific nature of many remedies, Congress has avoided establishing a program for nonpoint source control.

However, in the past decade, through the 208 process and studies undertaken by a variety of sources, a body of knowledge has been developed about the nature, extent, and potential solutions for nonpoint source pollution that leads us to one conclusion: we cannot afford to wait any longer to establish effective nonpoint control programs.

To list only a few of the salient facts:

EPA reports that 6 out of the 10 Federal regions site nonpoint sources as a principal remaining cause of water quality problems in their region.

The Conservation Foundation estimates that at least $6 billion in offsite damages are caused annually by sediment runoff or soil erosion. In addition, concern is growing about groundwater pollution caused by nonpoint sources, particularly pesticides, and overall pesticide use is expected to increase in coming years.

In the absence of Federal leadership, a few forward-looking States have set up strong point-nonpoint programs, but Federal leadership is needed to tackle this national problem in a meaningful, comprehensive way to insure that all States with serious nonpoint problems take action and to protect those States that have already developed programs from inheriting pollution problems from other States as pollution flows downstream.

We think that H.R. 8 does establish the basic framework for beginning to control nonpoint source pollution. We would like to emphasize the importance of local input in contributing to the success of these programs.

Since appropriate best management practices to control nonpoint problems are often site-specific, we hope that the States will make every effort to obtain substantial local input at the earliest stages of program development. Public understanding and support are fundamental to the success of all environmental programs, but the public role in designing this program from the bottom up is critical.

While the nonpoint source pollution control program in H.R. 8 is a good first step, it suffers from two fundamental problems.

First, while this program would encourage States that are already doing a good job in controlling nonpoint to do more, it provides a few real carrots and sticks to give States that are currently doing nothing to act. These are the States where the most severe problems lie, and this subcommittee should consider further action.

Second, even this first step may not occur because the program probably will not be fully funded, if at all, due to our current economic crisis. However, this first problem may be partially solved by new proposals we will make in this testimony, and the funding problem can be solved by resources that are at hand.

As we stated in the opening of our testimony, we are in favor of retention of the current levels of title II, construction grants funding, for the current reauthorization period and the addition of a revolving loan fund. All money available under title II, and in particular any money in a revolving loan fund, should be made available for control of or nonpoint source pollution where it will effectively improve water quality and is a cost-efficient use of funds. This should be done for a number of reasons.

First, it would provide sure funding from the water quality-related resource pool. It would also offer greater flexibility to insure the best pollution control bang for your buck is achieved.

Second, as 6 out of the 10 Federal regions cite nonpoint sources as a principal remaining cause of water quality problems in their region, it is clear that cleaning up these sources may represent the best increment for reaching water quality goals. This will protect the billions of dollars of investment we have made in cleaning up point sources.

Third, the set-aside accounts of title II offer a natural and excellent interim funding source for nonpoint source control. The governor's discretionary fund currently used for ineligible projects would have more flexibility. Since agriculture is a major source of nonpoint pollution, the rural communities set-aside is a natural place to go for nonpoint control funds. The innovative and alternative technology set-aside also could supply a cleanup source for the 20 States currently returning I&A funds.

The revolving loan fund offers special advantages for the control of NPS pollution. We feel that by giving low-cost loans to control NPS pollution, incentives would be provided to clean up pollution. NPS pollution is by its nature diffuse and we favor cost-sharing grants for demonstration projects or particularly troublesome areas. In addition, a loan approach strikes us as both cost-efficient and correct as a general philosophy.

In the past both the House and the Senate Appropriations Committees have been reluctant to fund some clean water programs. We commend this subcommittee for authorizing more funds than the Senate, but it is unclear whether these funds will ever be appropriated. It is absolutely crucial that this subcommittee find a means for funding this program; otherwise it simply will not work and the hard work which has gone into designing it will be for naught.

Many Federal agencies such as the U.S. Department of Agriculture, the Office of Surface Mining, the Federal Highway Administration, and the various Federal land management agencies conduct activities that can cause severe nonpoint pollution problems if improperly planned. It is unfair and inefficient to tell the States that they must clean up while the Federal Government does not have its own house in order.

We are glad to see that H.R. 8 permits States to develop a list of the Federal development and federally-assisted activities that can have nonpoint impact and to recommend how such proposed projects could be made consistent with State programs. Then, if a State finds inconsistencies, Federal agencies are required to accommodate State concerns. We think the Federal consistency provision gives States important, fully-warranted controls over Federal activities that would undercut State water quality goals.

But, beyond this, we believe that the Federal Government has an independent responsibility to insure that its activities do not exacerbate already serious nonpoint problems, whether or not a State control plan is in effect.

The bill now requires that if States fail to develop a program, EPA will step in to identify waters where nonpoint pollution has prevented attainment of water quality standards and designate the pollution sources causing the problem. In these cases we think that EPA should also be required to develop a list of Federal activities and assist in programs affecting nonpoint pollution and prohibit any such activities that would lead to more severe water quality problems in these identified areas.

Other Federal agencies also should have a mandatory duty to establish how their programs may be inconsistent with controlling nonpoint source pollution. The law should also mandate that not only do the States have the right to enforce consistency, but these agencies have a mandatory duty to lessen their contribution to NPS pollution.

It is time the Federal left hand let the Federal and State right hands know what they are doing. It is time that we stop subsidizing the creation of nonpoint pollution only to pay once more to clean it up.

In the past citizens' suits have been an effective tool in expediting development and enforcement of environmental programs. We urge the committee to amend section 505 of the act to allow suits not only against EPA but also against any governmental unit for failure to carry out its mandatory requirements established by the Clean Water Act. Without this provision, while EPA will have the responsibility to get other agencies to clean up their act, no real authority will exist to make this happen. Citizen suits will add a reasonable and workable avenue for public participation in this process.

The league believes that the changes we have asked for in this testimony are reasonable and, given the scope of the problem, quite minor. We are convinced that 4 years from now the League of Women Voters will be right back in this room talking about the need to solve NPS pollution problems. With the improvements we have asked for—title II funding, greater Federal consistency, and citizen suits—we feel this program may give us a good start toward solving nonpoint pollution problems. However, without funding and without the additions we have asked for, we fear this program will accomplish little in moving us toward the goals of fishable/swimmable waters for all Americans.

The time is now for forcing the development of well-designed State implementation plans, with tough sanctions for those States that chose to pollute the waters of those who live downstream. The league has written an article outlining the elements of an effective nonpoint program which was published in the April issue of Environmental Forum. We ask that this article be included in the hearing record.

Mr. Roe. Without objection, so ordered.

Ms. HOLMES. We believe the time is now to invest our funds and clean up this largest remaining water quality problem, so that our children neither have to suffer the further poisoning of their surface waters with heavy metals and pesticides, the further loss of their valuable topsoils, nor pay even larger costs for cleaning up these problems later.

In our testimony we have suggested the bare minimum necessary to give the H.R. 8 NPS Program a chance to work and to give this bill a chance for quick passage. We sincerely hope that you will take these concerns and suggestions to heart and improve this bill.

Mr. ROE. I am sorry, we obviously are having a difficulty this afternoon, to say the least.

I want to thank you for your testimony.

This would be a good time to break at this point, so we can go out and vote again. We will recess for a few minutes to go vote again.

[Recess taken.]

Mr. ROE. We have been having some difficulties on the floor. There is a motion up now to adjourn. Mr. Sundquist will be back in a few minutes, I would think, and then we will continue on from there.

Now it is my understanding that the next set of witnesses, which would be the association panel—I believe you commiserated among yourselves, and we will move your hearing over until next Tuesday at 10. We will put you up first. I really appreciate very much your indulgence in a very difficult situation. I know it is a little bit extra work for you, but it will be helpful to us based upon the point of view that you would get a much fairer chance and a much more substantive opportunity to present your testimony. If that is satisfactory, we will reschedule you for Tuesday at 10 o'clock as witness No. 1.

We had just finished the testimony from Ms. Julia Holmes of the League of Women Voters.

David Baker, did you have anything to add?

Mr. BAKER. No. I will just answer questions.

Mr. ROE. OK. Our next witness, then, will be Mr. Mark Van Putten of the National Wildlife Federation, director of the Great Lakes Natural Resource Center.

Mr. Van Putten.

Mr. VAN PUTTEN. My name is Mark Van Putten. I am an attorney on the staff of the National Wildlife Federation and director of the Federation's Great Lakes Natural Resource Center which is located in Ann Arbor, MI.

In that capacity, I have spent the past 3 years working almost exclusively on the implementation of the Clean Water Act in the eight States bordering the Great Lakes.

Mr. ROE. Would the gentleman yield?

You are working from a summary now, are you?

Mr. VAN PUTTEN. Yes, I am.

Mr. ROE. OK. Thank you. I just was not following it.

Mr. VAN PUTTEN. I appreciate the opportunity to testify before you today on behalf of the Federation's 4.5 million members and supporters, including our 52 affiliated State and territorial organizations. NWF has a longstanding interest in cleaning up American's lakes and rivers and has been following closely the reauthorization of the Clean Water Act.

We have joined with a number of Government, industry, citizen, and environmental groups in formulating a consensus agenda for maintaining and improving the act. Together we have identified five elements of a reauthorized Act which we believe are essential for continuing the Nation's progress toward achieving fishable, swimmable waters.

These five elements include: maintaining and increasing the construction grants program for sewage treatment facilities, maintaining the present pretreatment program for industrial discharges of toxic chemicals into sewers, and adopting a mandatory nonpoint source pollution control program.

My testimony today will focus on the two other essential elements of our consensus agenda: The critical role of the 5-year wastewater discharge permit in achieving water quality goals and the growing national need for an antibacksliding policy to protect water quality improvements.

Before I discuss these two points, I would like to draw the committee's attention to the need for drastic revisions to the section 404 wetlands protection program. We believe that the Army Corps of Engineers is not adequately protecting the Nation's wetlands and we encourage this committee to amend H.R. 8 to transfer responsibility for administering section 404 to a different Federal agency and to increase the scope of activities covered by it.

Waste water discharge permits, often referred to as NPDES permits, are the primary means for implementing the Clean Water Act. These permits limit the kinds and amounts of pollutants which industries and municipalities may legally discharge into our lakes and rivers. Under current law these permits are limited to a maximum term of 5 years. Upon expiration of a permit, a discharger must apply for a new permit and can continue to discharge as authorized by the old permit until the new one is issued.

H.R. 8, subsection 27(a)(1) would allow discharge permits to be issued for up to 10 years. The National Wildlife Federation opposes lengthening the maximum term of waste water discharge permits for the following reasons:

First, it will delay needed controls on toxic water pollutants. Over the past year, we surveyed all of the States authorized by EPA to administer the permitting program. Based on this survey, we are convinced that the mandatory water quality-based permit reopener contained in H.R. 8, section 27(a)(2) simply will not work in most of these States. Therefore, 10-year permits would not predictably be reopened, but in many cases would freeze toxic pollutant controls for a decade.

Second, the information provided by dischargers as part of the permit reissuance process about the constituents of their waste water provides a unique snapshot of pollutant discharges into particular lakes and rivers. The National Wildlife Federation, like many conservation and citizen groups, regularly uses this information to identify the sources of pollution problems. Allowing 10-year permits would reduce by half the amount of information on pollutant discharges obtained through this process.

Third, permit writers must give public notice of proposed permit renewals. Interested citizens can then submit written comments on a proposed permit or request a public hearing. This gives the public a chance to help protect or clean up their favorite lakes and rivers. Ten-year permits would mean that citizens could only seek improved controls on a particular discharger through the permit reissuance process once a decade.

Finally, 10-year permits are a solution in search of a problem. While EPA and industry groups originally argued in favor of 10-year permits to eliminate the backlog in expired but not reissued permits, that rationale appears to have evaporated. As my written testimony and the attached exhibits demonstrate, EPA now maintains that the backlog in major permits will be substantially eliminated in fiscal year 1986. In any case, the proper solution to the problem of inadequate resources to reissue permits in a timely manner is not to insulate dischargers from improved pollutant controls for a decade. In short, 10-year permits are a bad idea.

Next, I would like to discuss the importance of enacting an antibacksliding policy to preserve the water quality improvements made over the past 13 years. Simply put, the idea behind an antibacksliding policy is that each successive permit issued to a particular discharger must be at least as stringent, if not more stringent, than the previous permit. Its purpose is to implement the Clean Water Act's goal of continued further progress toward the elimination of pollutant discharges. It is also the means for preserving the hard-won water quality improvements of the last 13 years. Therefore, we urge you to add an antibacksliding policy to H.R. 8.

In 1972, Congress proclaimed that diluting wastewater with our lakes and rivers was not an acceptable pollution solution. Thus, Congress prohibited the discharge of any pollutant by any person except in compliance with a wastewater discharge permit, and Congress required continued progress toward eliminating pollutant discharges. While we may better appreciate today the difficulty in meeting the goals we set for ourselves as a Nation back then, they are no less important and no less worth striving for.

The Clean Water Act's fundamental premise is continued progress in reducing pollutant discharges. This means that polluters cannot increase their discharges of pollutants whenever water quality improves beyond that required to meet minimum water quality standards, and that polluters that have invested in water pollution control facilities must continue to operate those facilities even if we cannot prove a direct environmental benefit for every increment of treatment. Finally, it means that the only thing left to argue about in reissuing expired wastewater discharge permits is whether additional treatment is needed, not whether existing treatment will be continued.

As my written testimony and the attached exhibits concerning recent developments in Michigan and Wisconsin demonstrate, States are under increasing pressure to abandon the act's goals by allowing polluters to turn off existing pollution control facilities and to increase their discharges of pollutants—just to save the costs of operating and maintaining existing facilities. Unfortunately, at the same time EPA is retreating from its nationally uniform antibacksliding policy which had assisted States in limiting backsliding to certain unusual situations. In fact, EPA's Office of Policy, Planning and Evaluation now appears to be encouraging backsliding and increased pollution under the guise of innovative permitting techniques.

Therefore, to reaffirm the fundamental goals of the Clean Water Act, we ask you to stem the tide of increased pollution of our lakes and rivers by enacting a strong antibacksliding policy which is applicable to both technology-based and water-quality based permit effluent limitations.

We think that the antibacksliding policy included in section 26 of H.R. 1509, introduced by Representative Oberstar, is a good beginning point. We would welcome the opportunity to work with this committee in refining this language to address the specific problems described in my written statement.

Mr. Chairman and committee members, the National Wildlife Federation urges you to make these improvements in H.R. 8 in order to protect and enhance water quality in our lakes and rivers. On behalf of the Federation, I would like to thank you for your continued leadership in protecting the Nation's environment and for allowing me this opportunity to express our views on the reauthorization of the Clean Water Act.

Thank you.

Mr. ROE. I thank the gentleman for his testimony.

The next witness is Ms. Hope Babcock, who is deputy counsel and director of Public Land and Water Programs for the National Audubon Society.

Ms. BABCOCK. Thank you, Mr. Chairman.

I am here today representing the National Audubon Society, a nationwide, nonprofit organization of over one-half million members.

A high priority of our members is protecting the quality of our Nation's waters. Therefore, I particularly appreciate this opportunity to testify and to appear before this committee and its distinguished chairman.

With your permission, I will summarize my remarks.

Audubon supports H.R. 8, although we have suggested a few modest changes to that bill outlined in detail in my written testimony, and I will try to summarize a few of those points today.

On balance, however, Audubon opposes the administration's package of proposed variances, stays, and extensions. Several of the administration's proposed amendments are constructive improvements to that statute that we can support, and I list those provisions in my written testimony.

However, the objectionable provisions in that proposal, four of which are discussed in detail in my written testimony and two of which I would like to go into this afternoon, make the package as a whole unacceptable to us.

In addition, we join with the Natural Resources Defense Council, who will be testifying at a later date, in viewing with alarm the proposed preemption of citizen suits in the administration's amendment authorizing the imposition of administrative penalties.

Let me turn now quickly to the two specific areas of concern we have with the administration's bill.

First, the administration has proposed a broad, largely unrestricted variance from national effluent limitations for coal remining operations, which we oppose. While we do not disagree that there is an important, albeit limited, problem concerning pollution from some abandoned coal mine sites, especially in Appalachia, and an incentive should be considered where appropriate to encourage reclamation of those sites through their remining, the administration's response is well beyond what is needed and will only serve to devastate further an already devastated region of the country.

The proposed amendment relaxes water pollution controls not only required under the Clean Water Act, but also under the Surface Mining Act.

I want to impress upon this committee that this is not an insignificant proposal by the administration. There are approximately 400,000 acres of abandoned mines containing economically recoverable coal in the country. A significant amount of mining occurs at abandoned coal mine sites because of the economic advantages associated with reworking an abandoned site as opposed to opening up a new mine area.

Acid drainage and erosion from unreclaimed mines causes severe water quality degradation that persists long after mining has ceased, in some cases rendering entire watersheds biologically dead, as I illustrate in my written testimony.

The administration's proposed variance for coal remining will only exacerbate the situation, as I outline in detail in my written testimony.

The main point I want to make is that last year a compromise was worked out between the coal mining industry and the environmental community that has the support of this committee and Representative Udall, chairman of the House Interior and Insular Affairs Committee, the committee with jurisdiction over the Surface Mining Act.

That compromise is accurately reflected in section 20 of H.R. 8. We support that compromise and see no reason to make any change in it of the magnitude proposed by the administration.

Our second problem concerns the administration's proposed amendment legitimizing their hitherto legally-questionable practice of issuing general permits under section 402 of the act. We oppose this amendment in its current form. While there may be reasons of administrative convenience for this proposal, as currently drafted it authorizes the unrestricted issuance of 402 general permits for any activity of any size or any impact. In fact, as written, the Administrator could issue a single general discharge permit for the entire country.

A general permit authorizes all activities fitting within the scope of that permit to proceed without any further review by the agency, other affected State or Federal agencies, or by the general public. A general permit is a blanket authorization to discharge pollutants, in effect deregulating previously regulated activities.

There is minimum, if any, enforcement. The National Environmental Policy Act does not apply to activities under authority of a general permit. Judging from the experience with general permits under section 404 of the act, no agency looks at the cumulative effect of the general permit authorization on a given watershed or whether continuation of a specific general permit is appropriate. The permitting agency tends to walk away from the area and put its resources into individual permit writing. In short, general permits are a very bad idea except in the most limited circumstance.

If this proposal is going to proceed, at a minimum, the safeguards found in section 404(e) of the act must be incorporated into the amendment. Those restrictions are set forth in detail in my written testimony.

I would now like to turn briefly to the topic of nonpoint source pollution. There is broad-based agreement on the need to begin the process of controlling nonpoint pollution and even surprising agreement on the process itself, although it is always disappointing to hear that EPA does not join in that consensus.

The cost of nonpoint source pollution, calculated to be as high as $6 billion per year for just erosion-related pollutants, and the national extent of the problem have helped to forge that consensus.

Audubon supports the nonpoint source pollution control program set forth in section 319 of H.R. 8. The proposed program represents a balanced compromise, a workable combination of incentives and requirements which should enable the process of controlling nonpoint source pollution to start.

We would, however, like to propose for this committee's consideration some modest ways in which section 319 might be made more effective without going beyond what makes practical sense at this point in time.

First, we ask the committee to consider amending section 303(c)(2) of the act to require States to adopt criteria for pollutants found in nonpoint source pollution for which the Administrator has already issued criteria or information under section 304(a) of the act. This amendment is necessary because the proposed nonpoint source program described in section 319 is premised upon States having sufficiently comprehensive and stringent water quality standards. Improving the scope of those standards can only improve the effectiveness of the nonpoint program.

Until States promulgate water quality standards for pesticides residues, fertilizers, lead, and heavy metals, for example, all found in significant quantities in runoff around the country, water containing these pollutants may not be part of the program.

This proposal merely requires States to do what they are already under some form of obligation to do anyway under section 303(c)—in other words, to revise and modify the water quality standards every 3 years, during which process they should be developing standards consistent with EPA's guidelines and information issued under 304. However, the States have been lagging significantly in this respect.

By limiting the pollutants in this proposed amendment to those of concern in the nonpoint source program and to those for which the Administrator has already published and issued criteria and information under section 304, the proposal makes this a manageable, though quite necessary, task for the States.

Second, there is increasing evidence of a relationship between nonpoint source pollution and groundwater contamination. The most recent example of this is the Kesterson Wildlife Refuge in

California where high levels of selenium, arsenic, and heavy metals have been found in the refuge's reservoir as a result of agricultural drainage from the San Joaquin Valley. Kesterson is not the only instance of this. I list several in my written testimony.

This relationship could pose a serious health problem for the rural farm areas of our country. Excessive levels of nitrogen reduces the oxygen-carrying capacity of blood, which can lead to oxygen deprivation or in extreme cases asphyxiation. That is the blue baby phenomenon.

A recent study from Australia shows a frightening correlation between consumption of drinking water standard levels of nitrogen, consumption levels that we now authorize under our drinking water standards, and a three-to-fourfold increase in the risk of birth defects. I would be pleased to provide a copy of the study for the record.

[The following was received from Ms. Babcock:]

National Audubon Society
NATIONAL CAPITAL OFFICE
645 PENNSYLVANIA AVENUE, S.E., WASHINGTON, D.C. 20003 (202) 547-9009

April 26, 1985

The Honorable Robert Roe
Chairman
House Public Works & Transportation Committee
U.S. Congress
Washington, D.C. 20515

Dear Chairman Roe:

I appreciate the opportunity to testify on behalf of the National Audubon Society at the Water Resources Subcommittee's April 25th hearings on reauthorization of the Clean Water Act. I am enclosing a copy of the Australian birth defects article I referred to in my testimony for insertion into the record of the hearings. Copies of all other reports referenced in my testimony have been sent under separate cover for the Committee's files.

Thank you very much.

Sincerely,

Hope M. Babcock
Director, Public Land and Public
Water Program; Deputy Counsel

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Original Contributions

CONGENITAL MALFORMATIONS AND MATERNAL DRINKING WATER SUPPLY IN RURAL SOUTH AUSTRALIA: A CASE-CONTROL STUDY

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PETER A. BAGHURST[3] AND KENNETH F. DYER[1]

Dorsch M. M. (NH&MRC Road Accident Research Unit, U. of Adelaide, Adelaide, South Australia 5001), R. K. R. Scragg, A. J. McMichael, P. A. Baghurst and K. F. Dyer. Congenital malformations and maternal drinking water supply in rural South Australia: a case-control study. *Am J Epidemiol* 1984;119: 473-86.

A case-control study, carried out in the Mount Gambier region of South Australia, investigated the relationship between mothers' antenatal drinking water source and malformations in offspring. It was prompted by earlier descriptive findings of a statistically significant, and localized, increase in the perinatal mortality rate in Mount Gambier, due principally to congenital malformations affecting the central nervous system and multiple organ systems. Available for statistical analysis were 218 case-control pairs, from the period 1951–1979, individually matched by hospital, maternal age (±2 years), parity and date of birth (±1 month). Compared with women who drank only rainwater during their pregnancy (relative risk (RR) = 1.0), women who consumed principally groundwater had a statistically significant increase in risk of bearing a malformed child (RR = 2.8). Statistically significant risk increases occurred specifically for malformations of the central nervous system and musculoskeletal system. Reanalysis of the data by estimated water nitrate concentration demonstrated a nearly threefold increase in risk for women who drank water containing 5–15 ppm of nitrate, and a fourfold increase in risk for those consuming >15 ppm of nitrate. A seasonal gradient in risk was evident among groundwater consumers, ranging from 0.9 for babies conceived in winter, 3.0 in autumn, to

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7.0 and 6.3 for spring and summer conceptions, respectively. Linear logistic regression analysis, controlling for risk factors not accounted for in the study design, showed that maternal water supply, infant's sex, and mother's area of residence all contributed significantly to the risk of malformation. These results are discussed in relation to previous experimental and human descriptive studies, suggesting a plausible mechanism for nitrate-induced teratogenesis.

abnormalities; environmental health; neural tube defects; nitrates; retrospective studies; teratogens; water supply

Descriptive epidemiologic studies of congenital malformations rates in different populations have suggested an environmental component in the etiology of these anomalies, especially defects of the neural tube (1). This evidence, and that from animal experimental work, has stimulated analytic studies which may implicate various specific factors present in the maternal environment as human teratogens (2, 3). Deficiencies of certain factors, such as maternal dietary vitamin deficiencies (4–6), have been found to be associated with neural tube defects.

Penrose (7) first proposed that large variations in the rates of neural tube defects across the British Isles might be attributed to differences in the softness of local drinking water supplies. Subsequently, numerous correlation studies of neural tube defects in different population groups have addressed the potential etiologic role of various mineral elements present in tap water, including inter alia: calcium, magnesium, chromium, zinc, copper, cadmium, lead, mercury and molybdenum (8–13). Overall, these correlation studies have failed to yield consistent or conclusive findings and all have shared a similar shortcoming: namely, the necessary application of mineral concentration estimates for whole communities to individual mothers within those communities (13).

Two case-control studies have attempted to correct the latter deficiency (14, 15). Each compared the mean measured concentrations of minerals in tap water consumed by mothers of infants with neural tube defects (cases) with those in water consumed by mothers of normal babies (controls). No differences were observed in the earlier study (14). However, in the more recent study, a statistically significant difference was observed only for zinc, the mean concentration of this metal being 0.06 ppm lower in the water of cases than in that of controls. Nevertheless, the authors argued that this difference seemed biologically unimportant and could well have arisen by chance (15).

In an earlier paper we reported findings from a descriptive survey of perinatal mortality due to congenital malformations in various local government areas within South Australia (16). This study showed a statistically significant localized increase in the fetal death rate, attributable to defects of the central nervous system and multiple organ systems, in the Mount Gambier district (figure 1). No such increase was apparent in the surrounding regions.

The City of Mount Gambier (present population about 20,000) is situated on the edge of an extinct volcano complex, and is the major center for a predominantly rural region known as the Lower South East. Sheep for meat and wool, dairy products, beef cattle, and soft wood timber (which forms the basis of a considerable manufacturing industry) are the major products of the region. Mount Gambier is also an important transport and tourist center (17).

Most of the Lower South East is underlain by thick limestone beds, the Gambier

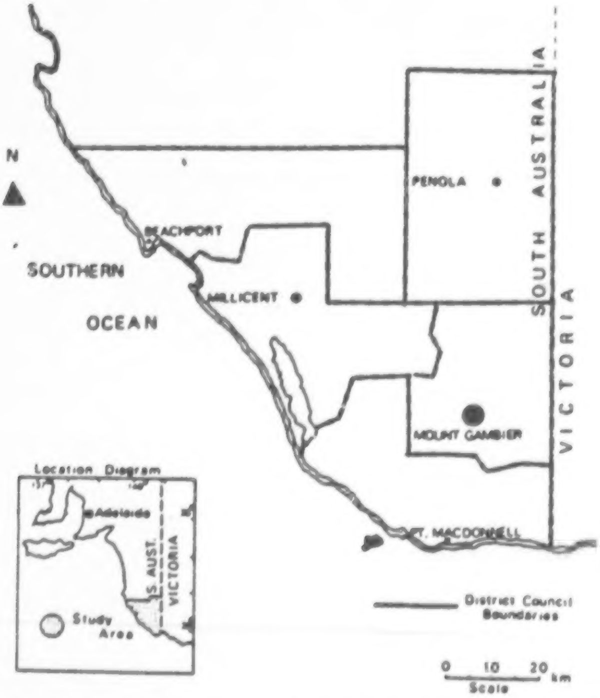
N
SOUTHERN
OCEAN
BEACHPORT
MILLICENT
PENOLA
MOUNT GAMBIER
PT. MACDONNELL
SOUTH AUSTRALIA
VICTORIA
Location Diagram
Adelaide
S. AUST.
VICTORIA
Study Area
District Council Boundaries
0 10 20 km
Scale

FIGURE 1. Map showing location, boundaries and principal townships of the Lower South East (South Australia).

Limestone, frequently punctuated by distinctive karst features (caves, sinkholes and other solution features). As a consequence of its effective underground drainage and generally flat topography, the Lower South East has virtually no surface water and only a few sites for surface water storage (18). All domestic water in the area is accordingly derived from rainwater tanks and/or underground sources.

There are two major aquifers (water bearing rock formations) in the Lower South East, namely: 1) the upper Gambier Limestone, which varies in thickness from only a few meters north west of Mount Gambier to over 300 meters near the coast; and 2) the lower Dilwyn Formation, consisting of interbedded clay, sand and gravel sediments (19).

These aquifers typically yield very hard water, ranging from 100 to 500 ppm as calcium carbonate (18). With respect to other water quality parameters, surveys carried out to date indicate that the hydrochemistry of the two aquifers is broadly similar (18, 19). However, there are several important differences, most notably the presence of significant contamination by dissolved nitrate in the upper limestone aquifer. The distribution of water containing high concentrations of nitrate in this aquifer coincides with the areas where large amounts of wastes have been disposed of directly underground within a confined area (18). On the other hand, the high concentrations of iron and hydrogen sulfide gas sometimes encountered in the lower Dilwyn aquifer are not present in water derived from the Gambier Limestone (18). Up to the present time there has been little exploitation of the lower aquifer for domestic purposes, because of the greater effort and cost involved in drilling bores or wells to these depths (19).

Mount Gambier City and its immediate surroundings have a municipal (mains) water supply derived from the Blue Lake which lies in the remnants of an extinct volcano cone. About 80 per cent of the Lake's water comes, under pressure, from the lower aquifer. Rainfall and water from the upper limestone aquifer each contribute to a smaller extent. Other major townships in the region also have municipal supplies of groundwater (usually from the upper limestone aquifer). All municipal supplies are maintained by a single government water authority. Wherever there is no mains supply, households rely for their domestic water on privately owned bores or wells (which draw on the upper aquifer) and/or rainwater tanks.

Our observation of a localized excess of congenital malformations in the Mount Gambier district (16) suggested a need to seek a causal factor in the local environment.

Of the potential causal factors considered, one in particular seemed plausible: namely, groundwater nitrates. The reasons for this were twofold. First, nitrate levels in the Blue Lake and heavily utilized limestone aquifer of the Mount Gambier region are high by comparison with those in most other South Australian drinking water supplies, and, in certain local bores, greatly exceed the World Health Organization recommended limit of 45 mg/liter (20). Nitrate levels in the Blue Lake average about 15 ppm (19). Second, a descriptive study carried out in the United Kingdom had demonstrated statistically significant correlations between the per capita consumption of nitrate/nitrite cured foods and both spatial and temporal variations in the prevalence of anencephalus (21).

A case-control study was therefore carried out.

MATERIALS AND METHODS

Sources of data

Cases and controls were identified in the delivery registers of the three general hospitals serving the Lower South East obstetric population. All cases of congenital malformations (defined as structural defects present at birth), recorded between 1951 and 1979 in a total of 22,989 registered births, were noted. (It is unlikely that any malformed infants were missed as a result of home deliveries, since the proportion of hospital births in South Australia has approximated 100 per cent for at least the last 30 years.) A total of 258 (94 per cent) of the malformed babies were subsequently matched on an individual basis with seemingly normal control babies by hospital, maternal age (±2 years), parity, and date of birth (±1 month). Malformations were classified according to the Eighth Revision of the *International Classification of Diseases* (22).

For each mother, the address recorded at the time of admission to hospital was noted and assumed to be identical with her residence for the duration of pregnancy. These addresses were combined into a single alphabetic listing. Each address was then visited by one of us (MD), and details on whether the household consumed water from the Blue Lake, bore water, or rainwater at the time of the pregnancy were collected. Since the householders interviewed were not aware of the hypothesis under test, and because the interviewer also did not know their identities (as cases or controls), the findings reported here should be free from recall and interviewer bias. Actual or estimated levels of nitrate ion in these household water sources, including each individual private bore, were supplied by the government water authority.

Satisfactory information on maternal water source during pregnancy was not available for 40 case-control pairs, thereby leaving 218 matched pairs for statistical analysis.

Statistical methods

The matched pairs odds ratio was used in univariate analyses as an estimator of relative risk, and its exact 95 per cent confidence intervals were computed using the binomial distribution (23). Conditional linear logistic regression was used for a multivariate analysis (24). With the latter, the method of maximum likelihood was employed for estimation of the regression coefficients, and the likelihood ratio test was used to determine the goodness-of-fit of alternative models (23).

RESULTS

Univariate analyses

The paired relative risk (RR) estimates for the occurrence of a malformation in the offspring of women consuming Blue Lake or bore water were 2.8 (exact 95 per cent confidence interval (CI) = 1.6–5.1) and 2.8 (CI = 0.8–11.8), respectively, compared with women exposed only to rainwater (table 1). Furthermore, this overall increase in risk, associated with groundwater consumption, was consistently present when the data were examined for each of the three calendar decades (1951–1960, 1961–1970, 1971–1979).

The relative risk estimate for bore or well water consumers was also found to vary according to whether the bore was privately owned or government controlled. For women consuming water from private bores (most of which had nitrate levels in excess of 15 ppm), the relative risk of malformations in offspring in an unmatched analysis was 4.1 (CI = 1.7–10.0), compared with 1.0 for women who drank rainwater. On the other hand, the relative risk was only 1.4 (CI = 0.6–3.4) for those women who consumed municipal water supplies derived from government bores with nitrate levels ≤1 ppm.

Since estimated water nitrate concentrations were available for most individual households, these data were subsequently reanalyzed, ignoring water source, to look for evidence of a dose-response relationship with nitrate. It was found in a matched analysis that compared with women who consumed water with nitrate levels below 5 ppm, those drinking water containing 5–15 ppm and more than 15 ppm of nitrate experienced a nearly threefold (RR = 2.6; CI = 1.6–4.1) and a fourfold (RR = 4.1; CI = 1.3–13.1) increase in risk, respectively (table 2).

Effect modification due to maternal age and season of conception

Stratification of the matched pairs on the basis of case mother's age (≤24, ≥25 years) showed an increase in risk in both groups. Although there was a suggestion of interaction with maternal age, the relative risk for women in the older age group being higher (RR = 3.4) than that for those aged 24 years or less (RR = 2.3), this difference in risk between the two groups was not statistically significant.

The odds ratios associated with maternal groundwater exposure, by season of conception, are shown in table 3. This table was generated by assuming a nine-month gestation period for both case and control. For babies conceived in winter, the relative risk of malformation, given prior maternal groundwater exposure, varied little from unity. However, babies conceived in autumn, and whose mothers drank groundwater, had a greater risk of being malformed (RR = 3.0). In both spring and summer conceptions the relative risk was substantially elevated (RR = 7.0 and 6.3, respectively).

TABLE 1

Relationship between maternal water source and risk of congenital malformations for babies born in the Lower South East of South Australia, 1951–1979

Source of groundwater	Controls	Cases		Relative risk (95% confidence interval)
		Groundwater +	Rainwater −	
Blue Lake	+	75	18	2.8
	−	50	34*	(1.6– 5.1)
Private or government bores	+	3	4	2.8
	−	11	34*	(0.8–11.8)
All sources of groundwater†	+	101	22	2.8
	−	61	34*	(1.6– 4.4)

* These pairs are identical and appear in each category.

† Table excludes 23 matched pairs in which both case and control consumed water containing a groundwater component, where one member of the pair drank Blue Lake water and the other member drank water from a private or government bore.

TABLE 2

Dose-response relationship between maternal water nitrate exposure and risk of malformations in babies born in the Lower South East of South Australia, 1951–1979

Nitrate level (mg/liter)	Relative risk*	95% confidence interval	No. of cases	No. of controls
<5	1.0		70	107
5–15	2.6	1.6– 4.1	138	106
>15	4.1	1.3–13.1	10	5

* Individual pair matching retained.

Since many malformed babies are born prematurely, and also because the present case-control pairs were matched individually on date of birth, an unmatched analysis by season was subsequently carried out, this time taking account of gestational age at delivery. The results obtained by examining the data in this manner were little different from those cited above.

Variations in risk by affected organ system

A stratification of the matched pairs data by the organ system affected again revealed variations in the basic relative risk estimate (table 4). Analyzing the data by affected organ system was predicated on the assumption that prior exposure to groundwater (and, possibly, dissolved nitrates) might not necessarily entail an increased risk for all types of defects. Although the relative risk was found to be elevated in all groups examined, this increase was statistically significant only for defects of the central nervous system (RR = 3.5; CI = 1.1–14.6) and abnormalities of the musculoskeletal system (RR = 2.9; CI = 1.2–8.0).

A further categorization by more specific groups of defects (e.g., neural tube defects, oral clefts, gastrointestinal fistulas or atresia, talipes) demonstrated a statistically significant association with maternal groundwater consumption only for the neural tube defects, anencephalus and spina bifida (RR = 3.5), and the oral clefts (RR = 4.0). In these comparisons, all babies with, for example, oral clefts were considered as a group disregarding coincident anomalies.

TABLE 3

Relationship between maternal water source and risk of malformation by season of conception, for babies born in the Lower South East of South Australia, 1951–1979

Season of conception	Controls	Cases		Total	Relative risk	95% confidence interval
		Groundwater +	Rainwater −			
Spring	+	30	2	32	7.0	1.6–63.5
	−	14	10	24		
		44	12	56		
Summer	+	15	4	19	6.3	2.2–24.7
	−	25	8	33		
		40	12	52		
Autumn	+	26	4	30	3.0	0.9–12.8
	−	12	8	20		
		38	12	50		
Winter	+	29	12	41	0.9	0.4– 2.3
	−	11	8	19		
		40	20	60		
Overall	+	100	22	122	2.8	1.7– 4.8
	−	62	34	96		
Total		162	56	218		

Multivariate analysis

The results of the multivariate analysis, employing a linear logistic regression model, are presented in table 5. The logistic function was used to determine the relative risk associated with different categories of the following measured risk variables: infant's sex; maternal marital status, nationality, area of residence and water supply; and paternal occupation. For each of these risk variables, the relative risk was calculated after controlling for simultaneous confounding by all the other factors, none of which was accounted for in the study design.

As table 5 shows, only three variables included in the analysis produced a statistically significant effect in the model under test, namely: maternal water supply, infant's sex, and mother's area of residence. The elevation in malformation risk associated with male sex was not unexpected, given that previous studies have suggested that the male fetus is more vulnerable than is the female (25, 26). As regards mother's area of residence, the present data indicate that women living in the rural districts immediately adjacent to the City of Mount Gambier have the greatest risk of bearing a malformed child (RR = 3.4; CI = 1.4–8.5), compared with Mount Gambier urban residents (RR = 1.0), other townships (RR = 2.2), and other rural districts (RR = 1.8).

A significant elevation in risk of malformations in offspring was apparent for those women who consumed Blue Lake or bore water (RR = 4.9 and 4.3, respectively). The fact that these point estimates clearly exceed those from table 1 suggests that the multivariate analysis has controlled for some otherwise negative confounding effects. The risk of malformations in offspring was also apparently increased, after controlling for other measured risk factors, in those women whose water supply source could not be determined. In general, these women

TABLE 4

Variations in malformation risk associated with maternal groundwater consumption by organ system in babies born in the Lower South East of South Australia, 1951–1979

Affected organ system (ICD8)*	Controls	Cases		Total†	Relative risk	95% confidence interval
		Groundwater +	Rainwater −			
Central	+	19	15	34	3.5	1.1–14.6
nervous	−	4	5	9		
system		23	20	43		
Oroalimentary	+	16	8	24	2.7	0.6–15.6
system	−	3	3	6		
		19	11	30		
Musculoskeletal	+	30	20	50	2.9	1.2– 8.0
system	−	7	13	20		
		37	33	70		
Multiple	+	10	9	19	2.5	0.6–10.0
systems	−	4	6	10		
Total		14	15	29		

* *International Classification of Diseases*, Eighth Revision. Categories shown are mutually exclusive.

† Organ system categories containing too few case-control pairs for meaningful analysis (e.g., genitourinary and cardiovascular systems) have been excluded.

were residents of the rural districts on the outskirts of Mount Gambier whose exact place of residence could not be located.

DISCUSSION

The results of this case-control study suggest that consumption of local groundwater by Lower South East women during pregnancy is associated with a significantly increased risk of malformations in offspring. For women who consumed Blue Lake water (predominantly groundwater, albeit from the lower aquifer), or bore water, the crude estimate of relative risk was 2.8, compared with the relative risk of 1.0 assigned to those drinking only rainwater. To our knowledge, no similar analytical findings have been reported elsewhere.

When the neural tube defects were considered in isolation an even stronger effect with maternal groundwater consumption was demonstrated (RR = 3.5). This finding is the reverse of what one might expect on the basis of earlier descriptive work suggesting a positive correlation between high incidence of these anomalies and softness (or calcium concentration) of local drinking water supplies (7, 8, 10). Groundwater supplies in the Lower South East, being derived from a predominantly limestone aquifer, are typically very hard with a high calcium and magnesium content (18, 19). Hardness levels in the Blue Lake over the past five years have averaged 200 mg/liter as calcium carbonate (Engineering and Water Supply Department, personal communication, 1983).

Given that the present association with groundwater is based upon retrospectively inferred data concerning maternal water supply in the first trimester, the findings should be interpreted with caution. The assumption that the address given by a mother at the time of admission to hospital is identical with her place of residence during the relevant phase of pregnancy may not always be justified. Inquiries at the hospitals concerned revealed that up to 5 per cent of all births registered there in the study period were to women who had resided outside the Lower South East during the first

TABLE 5

Results of multivariate logistic regression analysis of risk of malformations in relation to maternal water supply and five other covariables, for babies born in the Lower South East of South Australia, 1951–1979

	$\beta \pm$ standard error	Relative risk (approximate 95% confidence interval)	$p(G^2 > \chi^2_{(df)})$*
Baby's sex			0.016
Male	0.48 ± 0.20	1.6 (1.1– 2.4)	
Female		1.0	
Mother's marital status			0.950
Married		1.0	
Single	−0.12 ± 0.54	0.9 (0.3– 2.6)	
Other	0.15 ± 0.68	1.2 (0.3– 4.4)	
Mother's nationality			0.490
Australian		1.0	
British	0.16 ± 0.42	1.2 (0.5– 2.7)	
European	−0.31 ± 0.38	0.7 (0.4– 4.5)	
Other	−1.16 ± 0.93	0.3 (0.1– 1.9)	
Father's employment			0.530
Class 1		1.0	
Class 2	0.13 ± 0.34	1.1 (0.6–2.3)	
Class 3	−0.23 ± 0.40	0.8 (0.4–1.7)	
Class 4	0.13 ± 0.41	1.1 (0.5–2.6)	
Mother's area of residence			0.046
Mt Gambier urban		1.0	
Mt Gambier rural	1.23 ± 0.46	3.4 (1.4– 8.5)	
Other urban	0.79 ± 0.51	2.2 (0.8– 5.9)	
Other rural	0.59 ± 0.48	1.8 (0.7– 4.7)	
Mother's water supply			0.00011
Rainwater		1.0	
Blue Lake	1.59 ± 0.45	4.9 (2.1–11.7)	
Bore	1.46 ± 0.59	4.3 (1.4–13.8)	
Other mains	0.38 ± 0.55	1.5 (0.5– 4.3)	
Not known	1.53 ± 0.47	4.6 (1.8–11.6)	

* G^2 denotes twice the change in the log-likelihood statistic when a particular variable is fitted to the model, and is distributed as χ^2_f where f is the number of degrees of freedom lost in fitting that variable.

trimester. In the present study, exposure bias of this kind would be more likely to underestimate the relative risk than overstate it.

Sampling bias is another potential source of systematic error which must be considered in the interpretation of our findings. A small number of women may have transferred to hospitals outside the study area to obtain specialist care. (Generally, the study hospitals are capable of handling all save the most exceptional obstetric emergencies.) Such transfers could reasonably be expected to involve potential cases more often than potential controls. Furthermore, some babies with malformations may not have been reported in the delivery registers. However, sampling bias, leading to a spurious estimate of the relative risk, would only occur if the exposure profile of the missed cases is unrepresentative of that for all mothers of malformed infants. In the present study, there are no grounds for believing that this might be so.

There is a need also to consider misclassification bias, i.e., the erroneous placement of malformed infants in the control group or vice versa. Infants might have been incorrectly classified as controls simply because their malformations were not detected and/or reported. Thus, if some component of maternal groundwater exposure is causally associated with the risk of producing a malformed child, then the effect of such misclassification would be to underestimate the true relative risk. Whereas it is probable that some misclassification occurred in respect to mild cases of certain anomalies (e.g., talipes), and in cases of malformations not readily identifiable in the newborn period (e.g., congenital heart and renal defects), it is most unlikely that this would occur for gross (and often fatal) defects such as spina bifida and anencephalus.

Despite the failure of several of the trends in relative risk revealed by the present stratification procedures to attain statistical significance (at the conventional 5 per cent level), given the internal consistency of these trends, and their general agreement with the findings of our earlier descriptive study (16), we believe that these results provide evidence for a real association between the consumption of Lower South East groundwater and congenital malformations.

Assuming that greater quantities of water are imbibed during the warmer, drier months than during winter, then the demonstrated seasonal variation in relative risk could be regarded as consistent with the hypothesis that some factor present in groundwater is causally associated with the occurrence of malformations. This assumption is not unreasonable given the summer conditions experienced in South Australia. In January (the hottest month), the average daily maximum temperature in Mount Gambier is 26 C, although air temperatures may often well exceed 30 C for days at a time. It has been reported that the amount of water ingested by children is primarily influenced by air temperature (27) but we cannot be certain that this relationship holds true for pregnant women in the Lower South East. There have been no demonstrated seasonal variations in the levels of various chemical agents (including nitrates) in the groundwaters of the Lower South East that might explain the observed gradation in relative risk across seasons. (Municipal groundwater supplies in the region are monitored at weekly intervals by the government water authorities.)

The suggestion of an elevation in risk for a variety of malformation categories (table 4) seemingly militates against the hypothesis that some factor present in groundwater is causally associated with these anomalies. One might expect such an effect to be more specific. Thus we cannot entirely exclude the possibility that other unidentified maternal or environmental variables may be correlated with water supply.

Nevertheless, the marked association between neural tube defects and groundwaters with elevated nitrate levels in Mount Gambier is consistent with the demonstrated correlations between per capita consumption of nitrate-cured foods and the incidence of these defects in the United Kingdom (21). It is noteworthy also, that the N-nitroso compounds particularly produce malformations of the central nervous and musculoskeletal systems in experimental animals (28–30). Furthermore, the conversion of nitrates to nitrosamines or nitrosamides in humans, with subsequent transplacental transfer, is certainly biologically plausible (31–35).

The gradient in risk of malformations yielded on reanalysis of our data by estimated water nitrate concentrations, and ignoring water source, further supports the contention that dissolved nitrate may be the causal agent in this association. Compared with water in the range of less than 5 ppm of nitrate (relative risk set at 1.0), nitrate concentrations of 5–15 ppm were associated with a near trebling of risk, whereas those of more than 15 ppm resulted in a fourfold increase in risk. These three quantitative groupings of nitrate exposure correspond broadly with the qualitative water supply categories of rainwater, Blue Lake water, and bore water, respectively.

This finding naturally raises the question of whether there are other unidentified agents present in the local groundwater, that are correlated with nitrate, and which are responsible for its apparent relationship with malformations. At this stage, we cannot answer this question conclusively.

Previous groundwater studies have suggested that the most consistent and significant indicator of manmade pollution in the region (whether it be from municipal, agricultural or industrial sources) is the nitrate ion (18, 19). Since our earlier report (16), the government water authority has mounted special water quality investigations in the area, in attempts to determine if there are any correlates of water nitrates that might explain our results (Engineering and Water Supply Department, personal communication, 1983). Attention was focused primarily on the organic halides, particularly the trihalomethanes and brominated/chlorinated phenolic compounds, since many of these substances are known to have mutagenic or fetotoxic effects in experimental species (36, 37). Although these studies have not been completed, there is as yet no evidence that any of the compounds investigated are significantly correlated with nitrate.

Some epidemiologic studies have raised the possibility of a causal link between organic halides in treated drinking water and human cancer (36, 38) but we are not aware of any similar reports in relation to congenital malformations. Our finding that the relative risk was elevated in each of the three calendar decades studied suggests that chlorination by-products are not involved: the Blue Lake has been chlorinated only since 1967, and other groundwater supplies in the region are not disinfected. This does not entirely rule out a possible connection between organic halides and the incidence of malformations in the Lower South East. Chloride, fluoride and bromide all occur naturally in groundwaters of the region. (In the Blue Lake, the concentrations of these ions average about 92, 0.3 and 0.2 mg/liter, respectively.) However, in contrast with most other South Australian drinking water supplies (which are of surface origin), the groundwaters of the Lower South East are low in the organic precursors (humic and fulvic acids) required for trihalomethane formation.

Since bromine is chemically more reactive than chlorine, brominated organics tend to be the predominant halogenated species formed in the Lower South East groundwaters. Bromoform levels in the Blue Lake have averaged 23 μg/liter over the past five years, with a maximum recorded concentration of 42 μg/liter (Engineering and Water Supply Department, personal communication, 1983). For comparison, bromoform levels in water supplied to Adelaide, the capital city of South Australia, have averaged 19 μg/liter in the same period. Bromoform levels of up to 289 μg/liter have been recorded in surface water supplies to northern towns used as control areas for Mount Gambier in our earlier descriptive study (16). Total trihalomethane levels in drinking water are also considerably higher in other parts of South Australia than in the Lower South East.

It is possible that biologically more active but as yet undetected brominated compounds are distributed in the groundwaters of the Lower South East in a pattern consistent with the present case-control findings. Although traces of brominated phenols have occasionally been detected in the waters of the Blue Lake, these substances are not habitually present. It is thought that these isolated instances are the result of aerial contamination from timber preservation plants nearby (Engineering and Water Supply

Department, personal communication, 1983). Clearly, this is one area of investigation that merits detailed research.

The results of our multivariate analysis may cast doubt on the groundwater and nitrate hypotheses. Although the contribution of water supply to risk of malformations was apparently greater than that of mother's residence (table 5), both seemed to have a significant effect. This suggests that either: 1) some unidentified spatial variable is a determinant of malformation risk, independent of water supply; or 2) there is an unknown third factor associated with both residence and water supply which is responsible for the observed association of each of these risk variables with malformations.

It is difficult to evaluate these two suggestions in retrospect, given our small sample and the limited nature of the data relating to individuals available to us. The long time period covered by the study precluded attempts to trace individual women to obtain reliable and comprehensive antenatal histories. Clearly, individual data on maternal occupation, diet, and other environmental exposures would be valuable. In this context, details of paternal occupational exposures would also be of interest. Such data were not routinely recorded in patient records during the period studied, since the hospitals concerned are general community hospitals with limited resources.

Despite these deficiencies in our data, the results of the multivariate analysis and our knowledge of the local environment lead us to suggest several factors which might be considered as alternatives to the groundwater (and nitrate) hypotheses.

First, since the early 1900s the Lower South East has been extensively planted with softwood timber (principally *Pinus radiata*). There are now approximately 100,000 hectares of forest in the region. Concomitant with this afforestation there has grown a significant timber processing and paper manufacturing industry. About 6000 people are employed in these industries which comprise 11 sawmills, four pressure treatment plants (for timber preservation), two chipboard plants and two paper mills (18). A wide range of chemical agents or processes known to be mutagenic, or to adversely affect reproductive outcomes in experimental animals, are used in these industries (41). These include: phenols, cresols and xylenols found in creosote (a highly complex mixture of organic chemicals used in the preservation of timber); the multisalt timber preservative, copper-chrome-arsenic; and urea formaldehyde, which is used in the manufacture of chipboard. Since we know little of individual parents' occupational exposures to such agents in the periconceptional period we cannot determine their effects (if any) on the results of this study.

It is possible that the presence of these industries is in some way related to the effect of mother's residence on risk of malformations, as revealed by the multivariate analysis. Certainly, residents' complaints of objectionable odors emanating from the timber treatment plants in Mount Gambier are not uncommon under particular meteorologic conditions. As mentioned earlier, aerial contamination from these works is believed to be responsible for the periodic detection of brominated phenols in nearby Blue Lake. However, if this were so, then one might expect the risk of malformations to be greatest in the urban areas of the Lower South East which are closest to the sources of contamination (e.g., Mount Gambier City). This suggestion is not borne out by the results of the multivariate analysis (table 5). Yet without precise information on the siting of individual case or control homes in relation to these industries, and in the absence of detailed meteorologic data at the local level, we cannot reach any firm conclusions about the effects of this variable.

This may be one factor in the local environment which deserves further study.

Agricultural pesticides might also be responsible for the observed association of residence and/or water supply with malformations. While this variable might explain the greater risk of malformations for mothers resident in the rural areas on the outskirts of Mount Gambier, and for bore water consumers (table 5), it is unlikely to be an explanation for the elevation in risk experienced by Blue Lake consumers since this water supply is relatively isolated from significant sources of pesticide contamination.

Other factors which could be correlated with residence or water supply, or both, and be relevant in the present context include maternal infections (e.g., with *Toxoplasma gondii*) and inbreeding. However, neither of these possibilities seems credible given the types of anomalies we studied, the strength and consistency of he demonstrated associations, and the variations in relative risk with season and water nitrate levels.

In summary, given that other unidentified teratogenic factors could be correlated with water supply—either within or outside the water source—it would be premature to interpret our case-control findings exclusively in terms of water nitrate exposure. Nevertheless, we believe hat the internal cohesion of our findings, and their consistency with our earlier study and experimental evidence, lend weight to the possibility of a real association between groundwater nitrate conumption and malformations.

Although two other investigations have examined the relationship between conumption of high-nitrate well water and fetal or infant mortality (39, 40), neither of these studies has specifically addressed he possible relationship with congenital malformations.

Since high levels of nitrate in groundwater have been reported in many parts of the world, including the United Kingdom, Israel and the United States, we suggest that the relationship reported here should be investigated in populations elsewhere.

REFERENCES

1. Lech L. Correlations of malformation frequency with environmental and genetic attributes in man. In: Wilson JG, Fraser FC, eds. Handbook of teratology. Vol. 3. New York: Plenum Press, 1977:243-324.
2. Miller JR, Yasuda M. Environmental factors in the aetiology of congenital malformations in man. In: Emery AEH, ed. Modern trends in human genetics. Vol. 2. London, UK: Butterworths, 1975:308-36.
3. Klingberg MA, Papier CM. Teratoepidemiology. J Biosoc Sci 1979;11:233-58.
4. Smithells RW, Sheppard S, Schorah CJ. Vitamin deficiencies and neural tube defects. Arch Dis Child 1976;51:944-50.
5. Smithells RW, Sheppard S, Schorah CJ, et al. Possible prevention of neural tube defects by periconceptional vitamin supplementation. Lancet 1980;1:339–40.
6. Holmes-Siedle M, Lindenbaum RH, Galliard A. Vitamin supplementation and neural tube defects. (Letter.) Lancet 1982;1:276.
7. Penrose LS. Genetics of anencephaly. J Ment Defic Res 1957;1:4-15.
8. Fedrick J. Anencephalus and the local water supply. Nature 1970;227:176-7.
9. Fielding DW, Smithells RW. Anencephalus and water hardness in south-west Lancashire. Br J Prev Soc Med 1971;25:217-9.
10. Lowe CR, Roberts CL, Lloyd S. Malformations of the central nervous system and softness of local water supplies. Br Med J 1971;2:357-61.
11. Morton MS, Elwood PC, Abernethy M. Trace elements in water and congenital malformations of the central nervous system in South Wales. Br J Prev Soc Med 1976;30:36-9.
12. Bound JP, Harvey PW, Brookes DM, et al. The incidence of anencephalus in the Fylde peninsula 1956-76 and changes in water hardness. J Epidemiol Community Health 1981;35:102-5.
13. Elwood JM, Coldman AJ. Water composition in the etiology of anencephalus. Am J Epidemiol 1981;113:681-90.
14. Wilson TS, Watson RS, Richards IDG. Anencephaly and water supply—a study of the problem in Glasgow. Health Bull (Edinb) 1973;31:76-8.
15. St Leger AS, Elwood PC, Morton MS. Neural tube malformations and trace elements in water. J Epidemiol Community Health 1980;34:186-7.
16. Scragg RKR, Dorsch MM, McMichael AJ, et al. Birth defects and household water supply: results of epidemiological studies in the Mount Gambier region of South Australia. Med J Aust 1982;2:577-9.
17. State Planning Authority. South East planning

Ms. Babcock. While it is true that the full extent of the relationship between nonpoint source pollution and ground water contamination is not yet fully understood, it is important that section 319 not make matters worse by inviting implementation of best management practices that would adversely affect ground water. Therefore, we ask the committee to consider amending section 319 to direct States in the identification of best management practices to consider the impact of those practices on ground water. In other words, don't require a farmer, for example, to add a sedimentation pond or a holding basin on his farm where the water table is high and the soil is porous and the water would then seep through to groundwater.

Let me be clear that this amendment does not require a proponent of a particular best management practice to prove that a particular practice would not contaminate ground water—just to build some sensitivity to ground water impacts of those best management practices into the program.

Before I conclude, I would like to address briefly the topic of toxic variances, which came up this morning, and the need to amend the Clean Water Act to overturn the recent U.S. Supreme Court decision in *Chemical Manufacturers Association, et al.*, v. *National Resources Defense Council.*

In that case the Supreme Court affirmed by a 5 to 4 vote EPA's application of the so-called fundamentally different factors variance to the act's pretreatment program. We believe that, contrary to the Court's opinion, and as stated eloquently by the dissenters, Congress did not intend there to be any toxic variances of any kind when it enacted the Clean Water Act in 1972 and that Congress affirmed that intent when it amended section 307 in 1977.

Accordingly, we ask this committee to correct this misunderstanding by amending section 301(l) of the act to bar the application of FDF variances to toxic discharges in either the pretreatment or direct discharges program.

I would like to expand my comments here slightly, if I could. I think it is important to realize that we are talking about toxics in the first place and we are talking about a variance that was initially created somewhat out of whole cloth by the Supreme Court in a decision in the *DuPont* case in 1977. That case applied the variance only to conventional pollutants.

I think it is also important for the committee to realize that upon the filing of an application for such a variance the regulations that would otherwise go into effect are stayed. In other words, you get a de facto suspension of existing regulations during the pendency of the applications before the agency.

It is our position that these variances are a very bad idea and a poor policy for EPA to follow. They automatically result in weaker standards. What happens is you consider each source in isolation; you do not look at an industrywide level of what the industry as a whole is capable of achieving in the level of cleanup.

Generally, you see less technological innovation through the FDF variance process. Delays—variances take at least a year to process. EPA still has not decided applications for BPT variances, and these are the ones that the Court in the *DuPont* case had initially approved, since they were filed in 1976 and 1977. During that time the BPT regulations have not applied to those particular activities.

EPA does not need an FDF variance. After the lower courts struck down the variance, EPA issued six final and four proposed standards without the safety valve of variances. It is our position—and, indeed, EPA testified this way before the Senate earlier this week—that it is more efficient to decide whether sources are the same or different in the establishment of a national effluent limitation as opposed to the issuance of a variance.

Allowing the industry to apply for an FDF variance amounts to giving them a second bite of the apple. The first bite occurs when they have a chance to protest a particular effluent limitation. The second bite then occurs upon the application for an FDF variance. We oppose this use of the FDF variance, and we would ask the committee to consider very seriously overturning the Supreme Court's decision.

Thank you very much. I would be pleased to answer any questions.

Mr. **STANGELAND** [acting chairman]. Thank you, Ms. Babcock.

The chairman had to leave to catch a plane. He asked that I complete the hearing for the day. So we will proceed with some questions.

Mr. Lloyd, in your testimony you advocate the use of administrative civil penalties to improve enforcement in permit violation. Could you assess EPA's proposals in this regard? What are your views on H.R. 8's administrative penalty provisions?

Mr. **LLOYD**. We support the inclusion of the administrative penalties to give EPA greater enforcement flexibility. Our concern with the authority is that it not be used to bar citizen suits which are now allowed under the act. It has been our experience that often when citizen suits are filed the first thing a violator will do will be to run to EPA for an administrative order, which they then take to court and wave in front of the judge and say, "Your Honor, here we are. We have an administrative order from EPA. Please dismiss this citizen's suit."

We think that EPA needs the authority to administratively assess penalties, but we are concerned that that authority not be used to limit the ability of citizens to independently enforce the provisions of the act.

Mr. **STANGELAND**. Could you comment on the administrative civil penalty provisions in RICRA and FICRA, and have they resulted in a better enforcement record than under the Clean Water Act? Are the existing procedural safeguards in those statutes adequate?

Mr. **LLOYD**. Let me start with the last point. I think that the procedural safeguards are adequate. I think that the failing of the Clean Water Act has been the absence of this administrative penalty authority, and I would think that is one of the reasons we are recommending that it now be included in the Clean Water Act.

Mr. **STANGELAND**. On page 5 you advocate the use of a bounty or an award of up to 25 percent of the assessed penalty for successful citizen suits. Has this approach been used in any other environmental statute that you are aware of at either the Federal or State level?

Mr. LLOYD. I believe that since the River and Harbors Act of 1899 that it has not been used. We are recommending here that it be added as another mechanism to this act to give further incentives for citizens to help enforce the act with the State and Federal agencies.

Mr. GALLO. If the gentleman would yield——

Mr. STANGELAND. I would be happy to yield.

Mr. GALLO. Along those same lines, would you support just the opposite? On a frivolous suit, would the people who brought the frivolous pay the 25 percent?

Mr. LLOYD. I don't know that I would support that.

Mr. GALLO. If they lost the suit?

Mr. LLOYD. I don't know whether I would support that. There is certainly wide discretion in Federal judges to dismiss frivolous suits. I am not aware of any of the suits that have been filed under the act thus far having been dismissed or even the issue raised that they are frivolous.

Mr. GALLO. Thank you for yielding.

Mr. STANGELAND. Mr. Van Putten, with respect to the term of the NPDES permits, you argue in your written statement that data on toxic pollutants now gathered at least every 5 years would be gathered only once a decade, and I quote, "if the maximum permit term were doubled as proposed in H.R. 8."

What is it about the language of section 27(a)(1) or any other part of the bill that requires such a result? Isn't it true that nothing in the bill would prohibit EPA or the States from promulgating regulations which require a discharger under a hypothetical 10-year permit to collect and analyze at the 5-year point all of the same data currently examined at the time of permit reissuance? Isn't it also true that nothing in the bill would prohibit EPA or the State from reopening the permit at this intermediate point if changed conditions or new information should warrant such action?

Mr. VAN PUTTEN. There is nothing in the bill that would prohibit EPA or the State from using the authority in section 308 to seek whatever additional information from the discharger thought to be necessary. However, the information routinely supplied in permit applications is normally needed in order to formulate more focused requests for additional data.

What is unique about the permit application is that it requires a general screening of the effluent to find out what is there. Then, based on the permit application, the permit writer will identify specific pollutants of particular concern and will ask for additional information about those pollutants.

Although EPA or Congress could require more frequent effluent monitoring during the lifetime of a permit, I question EPA's commitment to obtaining the necessary data. For example, as recently as last summer EPA drastically weakened the requirements as to the kinds of data on toxic pollutants that dischargers must supply with their permit application. We are currently litigating EPA's action in this respect before the D.C. Court of Appeals. It demonstrates why I don't have a great deal of confidence in EPA's comitment to require the submission of toxic pollutant data.

Mr. STANGELAND. If we wrote a provision on a 10-year permit that required monitoring at periodic intervals, would that cover your concerns?

Mr. VAN PUTTEN. I suppose Congress could do this, but what is unique about the permit reissuance process is the fact that it is a general screen or a snapshot, of the constituents of waste water discharges. That information is then used to develop focused inquiries for further data.

Mr. STANGELAND. I have one more question for now, and I will yield to my colleagues.

On page 7 you indicate that you believe H.R. 8's mandatory response will not work based on a survey that you did of all of the approved NPDES States. Would you please provide for the record a copy of that survey, advise us who conducted it, which States were involved, who responded from the States for each State, what questions were asked, and what answers were given by each respondent? If you could provide that for the record, we would appreciate it.

Mr. VAN PUTTEN. I have no objection to providing all of that information except for the names of the individuals in the States that responded to our survey.

In our survey, we attempted to contact the individual most directly responsible on a day-to-day basis for permit writing in each State. We did not contact the head of the State water pollution agency. In many instances the responses that we were given may not be consistent with the views of those higher up in the agency.

Mr. STANGELAND. But then the survey does not really have total validity if that is the case.

Mr. VAN PUTTEN. Let me clarify the nature of our survey, since it has been mischaracterized.

When we performed this survey, we set out to find out one thing: How do States revise water quality standards and how does that process relate to the time table for reissuing discharge permits? The critical question is: Does the State revise water quality standards and establish numerical criteria for each pollutant of concern and for each river and lake, independent of the schedule for permit reissuance? Only then can revised water quality standards trigger the reopening of the permit as contemplated by H.R. 8's reopener.

We found out that in at least 18 States the specific numerical criteria were set only when a permit was to be written for that lake and river and there was a need to update the standards. We did not ask the States to cast a vote either for or against 10-year permits. That was not the thrust of our survey. We have never represented it as such.

Mr. STANGELAND. Would it be possible to provide us with perhaps not a name of who you contacted but a position, a title, the level of expertise of the person you were talking to?

Mr. VAN PUTTEN. Sure. We would be happy to provide you with that information.

Mr. STANGELAND. Thank you.

[The following was received from Mr. Van Putten:]

NATIONAL WILDLIFE FEDERATION
1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

Responses to Representative Stangeland's Questions Regarding the National Wildlife Federation Survey

Q: Would you please provide for the record a copy of the survey?

See copy of survey enclosed.

Q: Who conducted this survey?

The survey was performed by a paid staff member of the National Wildlife Federation.

Q: Which states were involved in this survey?

All NPDES-delegated states and many EPA-directed states; for the specific states contacted, see survey above.

Q: Who responded from the states for each state?

The position of the respondents from each agency varied from state to state but consistently were the people most directly involved in setting water quality criteria and writing NPDES permits; i.e., biologists and engineers in water quality standards and licensing and enforcement divisions.

Q: What questions were asked?

a. This survey was undertaken to determine whether the water quality reopener clause in S. 53 and H.R. 8 would function as intended. To this end, questions centered around when states revise water quality criteria for toxics and how this process relates to the permit reissuance process.

b. Questions obviously varied according to responses received, but generally questions such as these were raised:

- When and how often does your state revise water quality criteria for toxics?
- Does your state presently have toxic water quality criteria and, if so, for which toxics?

- How does your state adopt water quality criteria for toxics?
- Does the state plan to adopt numerical water quality criteria for toxics?
- Does your state adopt numerical water quality criteria for each toxic pollutant (as defined by the "priority pollutant" list) and if so, does your state adopt them for each stream segment receiving discharges?
- How and to what extent is biomonitoring used in your state to (a) review ambient water quality, (b) revise water quality criteria, and (c) revise or issue a permit?

Q: What answers were given by each respondent?

A summary of each respondent's statements would be detailed and impractical for the purposes of the record. In general:

18 states (see survey) normally revise or adopt toxic water quality criteria during the permit reissuance process. These 18 states use the priority pollutant scan required by the permit renewal application to identify toxic chemicals of concern in that particular wastewater discharge. As a result of the information generated by the scan, the state may adopt or revise one or more toxic water quality criteria, which are then incorporated into the reissued permit.

Very few states are vigorously pursuing the adoption of numerical water quality criteria for toxic chemicals. According to an EPA report on the triennial review of state water quality standards, only 13 states are planning to adopt numerical water quality criteria for toxics. In most cases the states intend to adopt one or two heavy metals or pesticides criteria.

- Ten of the states surveyed by NWF had no plan or program for the adoption of numerical toxic water quality criteria. These states are:

  Alabama, Alaska, Arkansas, Colorado, Delaware, Idaho,
  Iowa, Kansas, Missouri, and Washington

- Virtually no state plans to adopt numerical water quality criteria for all 126 priority pollutants for each stream segment receiving a discharge. This is the only certain method for ensuring the water quality reopener will function as intended.

Questions have been raised regarding one segment of our survey. This segment examined 5 states (MN, NJ, RI, VT, ME) which often include a reopener provision in their discharge permits. At the time, personnel stated that they were unable to recall successfully reopening and upgrading permits to incorporate new or revised toxic water quality criteria or new information on toxics.

Subsequent conversations with those five states have confirmed our opinion that the standard reopener provision is infrequently used. Most personnel continued to say that they cannot recall reopening any permits. The two states which have reopened permits said either (1) that they may have reopened permits two or three times since the beginning of their programs, or (2) that they had reopened one permit each year for the last two years. To the extent that a mandatory reopener works, we support it in order to ensure a dynamic response to the problem of toxic water pollution. We do not view it as a strong-enough staff to lean upon as a quid pro quo for allowing ten-year permits.

NATIONAL WILDLIFE FEDERATION
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Table I: Survey of States Adopting or
Revising Water Quality Criteria
Independent of Permit Reissuance

State	Adopt/Revise Criteria Independent of Permit Reissuance
Alabama	yes
Alaska	yes
Arkansas	?
Arizona	?
California	yes
Colorado	yes
Connecticut	no
Delaware	?
Florida	no
Georgia	?
Guam	yes
Hawaii	?
Idaho	yes
Illinois	yes
Indiana	no
Iowa	yes
Kansas	yes
Kentucky	no
Louisiana	no
Maine	no
Maryland	yes
Massachusetts	yes
Michigan	no
Minnesota	no
Mississippi	no
Missouri	yes
Montana	yes
Nebraska	yes
Nevada	yes

Table I, continued

New Hampshire	no
New Jersey	yes
New Mexico	?
New York	no
North Carolina	yes
North Dakota	yes
Ohio	no
Oklahoma	?
Oregon	some
Pennsylvania	no
Rhode Island	no
South Carolina	yes
South Dakota	yes
Tennessee	yes
Texas	yes
Utah	yes
Vermont	yes
Virginia	no
Virgin Islands	?
Washington	yes
West Virginia	yes
Wisconsin	no
Wyoming	yes

Summary: 40%, 18 of 45, states adopt or revise water quality criteria at permit reissuance.

? Uncertainty due to conflicting or insufficient information.

Prepared: December 1984.

Mr. STANGELAND. The gentleman from Minnesota, Mr. Oberstar.

Mr. OBERSTAR. I want to thank the panel for the thorough documentation that has accompanied each of the presentations, all of which of course will appear in our official committee record and which will be available as we move through markup and rules committee and to the House floor with this legislation. It is a very, very comprehensive presentation all of you have made, and I do compliment you for not only dedication to the cause, but very considerable expertise that was brought to bear upon the issue.

I thoroughly agree with the positions taken on what I feel is the last frontier in the clean water program, and that is the nonpoint source issue. Your collective, strong support for what I believe we have fashioned as an effective provision will go a long way to assure, if we get legislation enacted, that the nonpoint source issue will be dealt with and that it will be in some final version in a very strong way. If the other body can do as well or more, well, that is even better.

I raised earlier today with Mr. Ravan the questions that I have about the backsliding, particularly the case of the Allied Paper Company in Michigan. You have presented in your Wildlife Federation testimony, Mr. Van Putten, the EPA documentation.

In addition to that issue is action taken just recently by the State of Wisconsin that would allow trading in of wasteload allocations among dischargers. The Wisconsin statute, a copy of which I have here, provides that if a discharger terminates or reduces the discharge, either temporarily or permanently, that wasteload allocation that is not now going into receiving waters as a result of termination can be transferred to another discharger. On the surface of it, that would seem to be a reasonable thing to do—not worsening stream quality.

However, I would like to read some very important language from the Clean Water Act of 1972. The purpose of this legislation is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

We projected a goal of zero discharge, pollutants into the environment. By allowing the program to stagnate, we are, in effect, accepting the pre-1972 concept of discharging into the waters what they can hold, the amount of pollution, the amount of BOD load that the receiving waters can accept. That is not the concept of the 1972 act, which was to clean up the effluent before it gets into the water. It is not the concept of restoring the integrity of the Nation's waters. We will not be making progress; we may be staying at the same level or worse.

What authority is there in existing law that would give EPA the ability to come in and stop action of this kind, prevent this sort of trading, prevent the kind of Allied Paper Co. situation? I do not mean to pick on Allied, but they happen to be a case example that is there. It is real and it occurred, and EPA did not respond and the State did.

What is your reaction? What recommendations do you have in addition to those that were submitted in your testimony?

That question is for whoever wishes to respond.

Mr. VAN PUTTEN. Mr. Oberstar, I do not think there is any authority in existing law for that kind of backsliding. I believe the

1972 act, as amended in 1977, is clear in requiring continued progress in controlling pollutant discharges. The unique thing about the 1972 act was Congress' rejection of decades of frustration in trying to calculate exactly how much pollution our lakes and rivers could accept before there were adverse effects. Congress, in its wisdom, rejected that concept even before our recognition of the problem of toxic pollutants and their chronic effects on fish, wildlife, and humans.

Unfortunately, what has happened over the intervening 13 years both on the Federal and State level, is a movement back toward an attempt to try and set acceptable amounts of pollution and to allocate that amount between discharges. This represents a de facto rejection of the goals and commitments of the 1972 and 1977 acts. That is why it is so critical that Congress now reaffirm those goals to at least maintain the water quality improvements of the past 13 years. Congress should ensure that where a facility has been able to comply with its existing permit—and that is an important assumption here—and where water quality has improved beyond the absolute minimum currently thought necessary to protect the uses of that stream, the discharger be required to continue to operate in-place pollution control facilities. Polluters should not be allowed to turn off equipment and pollute the river back down to water quality standards. That is exactly what is going on in Wisconsin right now on the Fox River. That is what we are concerned about.

Mr. OBERSTAR. You probably heard the response Mr. Ravan made on my question relating to 10-year permits and what he said in response to the question about technological improvements that would require upgrading rather than downgrading or leaving level those permits. What is your reaction to the administration proposal for a 10-year permit? What is your reaction to Mr. Ravan's response that upgrading can be done? Can legislation be drafted to tighten that requirement? Should we stick with the 5-year permit approach?

Mr. BAKER. I think you are referring to the written testimony of the League of Women Voters. One point that we made is that these were not called national pollutant discharge elimination system permits for nothing. The key idea here is to eliminate these pollutant discharges.

One of the main reasons that we are opposed to the 10-year permits is that we really see them as a fundamental weakening of the law, not just a fine tuning, not just a change, but an actual change in direction from the way the law was originally crafted and from the way the law should be going.

These permits were meant to be changed, adapted, and tightened over time. Whether you believe that EPA would take an opportunity to upgrade or downgrade as the case may be the permits, if you make them 10-year permits instead of 5-year permits, that is an incremental slowing of the rate that we will be reaching that goal.

In terms of specifics of the legislation, of what kind of language can you write, certainly I think that retaining the 5 years, as the current law is, is the first step toward that. What Congress has to do beyond that—I think an essential part of this is a question of political will.

For some time under this Administration, and particularly with OMB interference, and now EPA sets its regulation, Congress' will in adapting the law in 1972 has not been fulfilled. I think that essentially the challenge that faces the Congress today is to try to find ways of making clear that that political will to keep our waters clean, to reach that goal of fishable, swimmable waters is still there. I think the statement of retaining it in the current law, particularly in the face of both bills containing it last time—the Senate committee has already taken a step toward that. Senator Chafee has made a full statement of rejecting the 10-year permits, and we think that by making that rejection in this subcommittee, too, that that step can be taken.

Mr. VAN PUTTEN. May I add something to that?

I think the important point to recognize is the certainty that these permit limits will be updated on a frequent, regular basis. With five-year permits, we know that and that effluent limitations will be updated, if necessary. I think our survey has cast enough doubt about the certainty of H.R. 8's reopener provision as currently crafted that we cannot rely on it as the quid pro quo for going to 10-year permits.

The other aspect to this is that in the permit reissuance context, although the discharger can continue to discharge under the terms of the expired permit until the new one is issued, there is a strong incentive for the discharger to cooperate fully in the reissuance process. If, on the other hand, with a permit reopener, the burden is on the permit writer to justify reopening the permit, and the discharger's incentive to cooperate is less than it is in the other situation.

Ms. BABCOCK. I would add a few thoughts as well.

The problem with the de facto stays that automatically go into effect at the expiration of a permit, that EPA basically elects not to exercise its enforcement authority and move against the permittee once he is, in essence, out of compliance because a new permit has not been issued and his old permit has expired. What you have is an extension of, in essence, an illegal situation.

In our opinion, it does not matter whether or not you have a 5-, 15-, or a 20-year permit. The key thing is to hold EPA's feet to the fire, to be sure that the permits are written, to be sure that they are not allowed to use stays to extend permit terms illegally, to be sure that variances are not used, with further stays accompanying the variances as well.

The other part of the puzzle that needs to be looked at is the whole process of writing State water quality standards. You ask how these maximum daily pollutant levels can be traded. When I look at 303(d), I really see no legal way, but one of the driving forces that is meant to push the process of setting tight, maximum daily pollutant loads is State water quality standards. In other words, a State is to come up with a maximum daily pollutant load for those waters where compliance with effluent limitations will not achieve State water quality standards. If the States are not driven by the 303(c) process and the 304(a) process into upgrading their State water quality standards, then the process envisioned in 303(d) simply is not going to take place. You will basically be filling the streams with the amount of pollution that they can bear.

There are many pieces that need to be focused on by the Congress.

Mr. OBERSTAR. Are there other States that you are aware of besides Wisconsin that are considering or have already in the process, in their legislative process, a trading provision?

Mr. VAN PUTTEN. The trading provision in the Wisconsin regulations is the first in the country that I am aware of.

Mr. OBERSTAR. But, if it continues and it achieves the affirmation of EPA, it can be a precedent and others will follow it, and I think we stagnate in our goal and efforts to reach the goal of the 1972 act.

Mr. VAN PUTTEN. I think the documents which we submitted from EPA's Office of Policy, Planning and Evaluation as an exhibit demonstrate that there is a contingent in EPA which is committed to this kind of backsliding. If you will read that document, you will see them constantly touting the Wisconsin example, even though it had not come to fruition at the time the draft document was prepared. So, it is not just a hypothetical statement to say that this is the precedent, because it is already being made into precedent before it even happens.

Mr. OBERSTAR. I am concerned if one of the better States would proceed down that road, then others that are not so acutely concerned about maintaining progress toward the goal of the Clean Water Act will do likewise and perhaps even somewhat exceed that Wisconsin statute.

Well, I thank you again very much for the contribution you have made to the work of our committee and toward the goal of the Clean Water Act. Thank you for being here this afternoon.

Thank you, Mr. Chairman.

Mr. STANGELAND. The gentlelady from Connecticut, Mrs. Johnson.

Mrs. JOHNSON. Thank you very much.

Just to pursue the antibacksliding policy issues a little bit, in one part of your testimony, Mark, you use the phrase "dynamic State knowledge of toxic chemicals." On page 4 of your testimony you say:

> Exceptions to anti-backsliding policy are allowed where the circumstances upon which the previous permits were based are materially or substantially changed since the issuance of the original permit.

Would you consider the determination that something formerly thought toxic now was nontoxic as fitting into that category of materially or substantially changed?

Mr. VAN PUTTEN. If that kind of clear determination were possible and if there was also a demonstration that no other pollutants were being discharged by the same process, then although there may not be a demonstrated environmental harm I would still resist it.

Mrs. JOHNSON. I don't mean to try to catch you, but I think I cannot think of an example. I do not have an example in my mind. When you say whether or not we would have to look to see if there is anything else affected and so on, I agree with you in all of those things, but were we able to make a rational case, then I think we have to have a law that allows that to prevail.

You were about to say that you do not think that you would do that, and I really caution you to think that over before you say it because one of the dangers we run is writing a law that people are going to find in practice such a problem that it will erode support.

This is not going to be a big problem on this issue, but the backsliding problem is going to be running into logic at certain points as well as even by those who strongly support a clean environment.

Mr. **Van Putten**. The reasons for my skepticism about the likelihood of a demonstration that there was no related environmental harm are borne out by the situation in Wisconsin and Michigan. Studies have shown a direct relationship between, for example, the discharge of solids and the discharge of PCB's. Yet, we see proposals to allow increased levels of the solids without an analysis of the relationship between increased discharges of toxic pollutant. We believe you ought to require a demonstration that discharges of increased solids does not mean discharges of increased PCB's before allowing the increased solids.

The other point, which maybe more responsive to the thrust of your question is that we have not taken an all-or-nothing position. For example, where a discharge permit was originally based upon an assessment of the feasibility of achieving a certain level of control, and it turns out that the discharger installed the contemplated technology, but still cannot meet the limits, that is a situation where we think backsliding may be appropriate.

So we are not saying that backsliding should never be allowed, but where it is the most dangerous is where it occurs in the context of arguing about, how much pollution can our lakes and rivers accept? One discharger says, "We think you can cut the line a little finer. We think the Kalamazoo River can take a little more."

The regulatory agency may say, "Well, no, we don't think so." The citizens say, "Well, we don't think so."

That is the kind of debate that bogged down water pollution control for decades up until 1972. There was a recognition in 1972 that we need closure at some point. Assuming that a facility has been able to comply with its limits for a pollutant, the question is: What kind of demonstration are we going to require before we let it pollute a river back down to minimum water quality standards?

While on the one hand, we hear claims that there is this great permitting backlog, it seems counterproductive to have the agencies rearguing old limits instead of issuing new permits with updated limits.

Those are all the reasons why we are so nervous about the present trend of backsliding. It is not, as I say, an all-or-nothing position on our part.

Mr. **Stangeland**. Would the gentlelady yield at that point?

Mrs. **Johnson**. Yes.

Mr. **Stangeland**. But isn't that debate really the vehicle or the means to establish the water quality standards, and isn't the foundation of the whole act to set and establish water quality standards? We need the debate in order to do that.

Mr. **Van Putten**. That debate is part of setting water quality standards. However, water quality standards are not the foundation of the Clean Water Act. They are secondary. They are a backstop only to be used in developing more restrictive limits than the technology-based standards.

Yes, we do need to engage in that kind of inquiry in setting new water quality standards. Then, what we are talking about is whether we need to require any additional treatment from a facility. In that context I agree with you totally—we need to have that debate.

However, what we do not need to do is to reopen up the debate over existing limits that a facility can meet and ask, do we really need to require them to do so much or can we allow a little more pollution; can't the river take 4 parts per million BO dissolved oxygen instead of 5? That kind of debate is not required by the Act, and is a waste of resources and counterproductive.

Mr. STANGELAND. I thank the gentlelady for yielding.

Ms. BABCOCK. The problem is, when you extend that debate in the toxics area, we simply do not have the data to enable a decision to be made. We just do not. Tosca, which is the statute under which we are going to be developing this data, is simply not working; it is not happening. Really, you go off into a never, never land of trying to make determinations where you don't have a record.

Mrs. JOHNSON. I appreciate that.

In the interest of time, let me just ask quickly what you meant by the "guise of innovative permitting techniques."

Mr. VAN PUTTEN. That is the catchall phrase that is being used in the draft study commissioned by EPA's Office of Policy, Planning and Evaluation which surveyed the various States to evaluate different situations in which backsliding could be encouraged. Rather admit that it is backsliding, they call it an "innovative permitting technique". I don't think more pollution is very innovative myself.

Mrs. JOHNSON. Can you give an example?

Mr. VAN PUTTEN. Sure, one may be seasonal limits. Where a facility has been able to meet a discharge limit year-round with installed treatment technology, one of the innovative techniques is to let them turn off the equipment in the winter when, some would argue, that treatment is not as necessary to protect the stream.

Mrs. JOHNSON. Would you consider it reasonable to even evaluate whether, indeed, it was necessary?

Mr. VAN PUTTEN. Only in the context of at the operation and maintenance costs. If the discharger could demonstrate—and it is important to indentify where the burden lies here—that those operational and maintenance costs, were wholly disproportionate to the kinds of costs the permit writer looked at in writing the permit, and this—assuming that the permit was originally based on an assessment of technology—then I think it may be OK.

Mrs. JOHNSON. I would disagree with you. I do not think you should be looking at the cost. That should not be the issue.

However, if, for instance, it is a matter of the temperature of the water being critical to how the waste is managed or affected or how it affects the environment, I think that ought to be a legitimate topic of discussion. If you can demonstrate that it does not represent a hazard because of the volume and temperature of the water into which it is being discharged, I think that you ought to have the right to say this cost is not necessary, because degree of cost should not be the issue. The quality of the water should be the issue.

I do not quite understand your earlier comment, and I cannot quite remember now whether it was you or Ms. Babcock that made the point about this being—in response to my colleague's comment--about water quality standards. It should not be technology driven. It should be water quality driven.

Mr. Oberstar. Would the gentlelady yield?

Mrs. Johnson. Yes.

Mr. Oberstar. We had that debate over a decade ago in this very chamber. One of the reasons that the effluent standards approach was adopted was that there were differences; there were situations where in northern climates cold water receiving bodies could accept a higher BOB load than warmer water bodies in the southern part of the United States. In certain times of the year there would be a competitive advantage for dischargers in the North over those in the South, and vice versa under other circumstances.

The decision was made that we should not be judging what can be discharged by how much can the stream accept, but rather how far can we go to improve the quality of the receiving waters by restricting the effluent before it gets there, and that, in so doing, we would be establishing an economically fairer system of pollution abatement than what had been in place prior to that and achieve the goal of improving the water quality.

I thank the gentlelady for yielding.

Mrs. Johnson. Just briefly, Ms. Babcock, let me ask you about the experience that you allude to in Pennsylvania, where you say efforts are underway at the State level to weaken the State water quality standards. Would you just enlarge on that, please?

Ms. Babcock. Yes; I would be happy to do that.

The State is right now considering changes to their State water quality standards which will relax significantly the limitations on the discharge of chlorine and the discharge of phosphates, both of which are critical pollutants so far as aquatic life is concerned. My concern there is with the proposal from the administration with regard to their variance for coal remining. The safety valve they have is that they tie the variance back to subsection 301(b)(1)(C), if I have my numbers correct. That is the section which authorizes more stringent effluent limitations to be enacted by EPA, if State water quality standards require a higher level of stringency. If the movement in the States is the other way, to relax State water quality standards, that will not be a very good safety valve to control that coal remining variance.

I would be happy to submit for the record more information of what is going on in Pennsylvania, but they are right now in a rulemaking proceeding, evaluating these relaxations.

[The following was received from Ms. Babcock:]

Page 10 - C DAILY INTELLIGENCER / MONTGOMERY COUNTY RECORD Friday, April 5, 1985

Environmentalists criticize state's new water standards

By Donald E. Wolf
Calkins Harrisburg Bureau

HARRISBURG — Pennsylvania's waters will become more polluted under new state water-quality standards, a coalition of environmental groups, including the National Audubon Society and Del-AWARE Unlimited, Inc., charged Thursday.

At a Capitol press conference, the conservation and sportsmen's groups said they have petitioned the Environmental Quality Board to toughen the regulations offered by the Department of Environmental Resources.

"We are asking the Commonwealth of Pennsylvania to maintain its high water quality standards, rather than retreat back many decades," said Walter Pomeroy, mid-Atlantic regional vice president for the National Audubon Society.

The recent board decision to approve the regulations "was ill-advised," Pomeroy said. "We ask them to reverse their decision to degrade Pennsylvania's water."

The rule-making petition was submitted by the Sierra Club, the National Audubon Society, the National Wildlife Federation, the Pennsylvania Federation of Sportsman's Clubs and Trout Unlimited.

Jeffrey Schmidt of the Sierra Club's Pennsylvania chapter, said the petition was submitted before Del-AWARE had an opportunity to sign it. Though a Del-AWARE representative was unable to attend the news conference, Schmidt said the group is part of the coalition.

John M. "Mike" Krauss of Del-AWARE recently confirmed the organization is a coalition member.

The regulations need federal approval before they may become effective. Janet A. Luffy, a spokeswoman for the federal Environmental Protection Agency, said a decision on whether to approve regulations is likely by the end of the month.

The Neshaminy Water Resources Authority filed suit in January to prevent the implementation of the new standards. A hearing is scheduled in Commonwealth Court June 5, said Tracy Carluccio, executive secretary of the NWRA. The agency also has appealed to the Environmental Quality Board to reconsider approval of the regulations.

The NWRA believes the revised standards violate state and federal clean water laws, Mrs. Carluccio said.

DER "is tying our hands, making it impossible for us to maintain and improve water quality in the Neshaminy watershed," she said.

Bruce Dallas, a DER spokesman, said the revised regulations are designed to conform to "modern technical (pollutant) levels (considered safe) without adding extraordinary and unnecessary costs to local municipalities, industries and ultimately consumers."

The coalition's major concerns are the relaxation of standards for phosphorus and the lack of standards for residual chlorine, said Vickie Greenlee, executive director of the Pennsylvania Federation of Sportsmen's Clubs.

Excessive phosphorus in water can result in algae growth which can cause serious pollution.

Waste treatment plants have been compelled to remove 80 percent of the phosophorus from water they discharge, Dallas said. The new standards require that phosphorus discharges not exceed two milligrams per liter. However, DER has the discretion to permit that standard to be exceeded so long as in-stream water does not exceed 2 milligrams per liter, he explained.

DER says the regulation will force it to look into other sources of phosphorus, such as farmland fertilizer carried by erosion.

"The bottom line is phosphorus controls will be the same if not more," Dallas said.

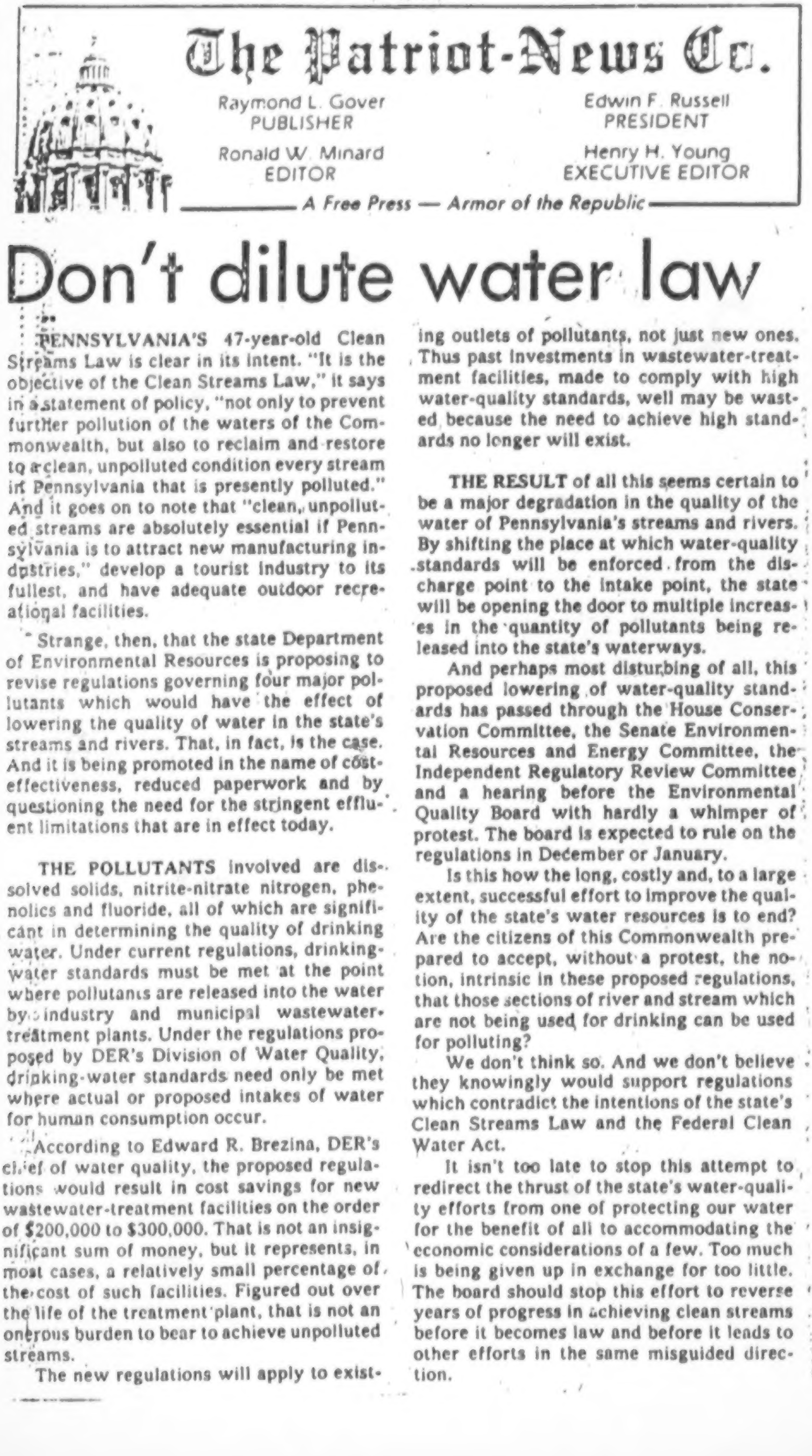
But critics of the standard believe phosphorus counts in Pennsylvania's streams will increase and along with it, pollution.

"The opponents don't understand the regulations," Dallas said. "They have to read them."

Contrary to an EPA recommendation, DER failed to include a standard to regulate chlorine in streams. Dallas said DER studies have indicated no adverse effects from residual chlorine in state waters.

Chlorine controls involve "an unnecessary cost that has little result," he said.

Nevertheless, he conceded DER submitted March 20 at EPA's request additional justification for excluding a chlorine standard.



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A Free Press — Armor of the Republic

Don't dilute water law

PENNSYLVANIA'S 47-year-old Clean Streams Law is clear in its intent. "It is the objective of the Clean Streams Law," it says in a statement of policy, "not only to prevent further pollution of the waters of the Commonwealth, but also to reclaim and restore to a clean, unpolluted condition every stream in Pennsylvania that is presently polluted." And it goes on to note that "clean, unpolluted streams are absolutely essential if Pennsylvania is to attract new manufacturing industries," develop a tourist industry to its fullest, and have adequate outdoor recreational facilities.

Strange, then, that the state Department of Environmental Resources is proposing to revise regulations governing four major pollutants which would have the effect of lowering the quality of water in the state's streams and rivers. That, in fact, is the case. And it is being promoted in the name of cost-effectiveness, reduced paperwork and by questioning the need for the stringent effluent limitations that are in effect today.

THE POLLUTANTS involved are dissolved solids, nitrite-nitrate nitrogen, phenolics and fluoride, all of which are significant in determining the quality of drinking water. Under current regulations, drinking-water standards must be met at the point where pollutants are released into the water by industry and municipal wastewater-treatment plants. Under the regulations proposed by DER's Division of Water Quality, drinking-water standards need only be met where actual or proposed intakes of water for human consumption occur.

According to Edward R. Brezina, DER's chief of water quality, the proposed regulations would result in cost savings for new wastewater-treatment facilities on the order of $200,000 to $300,000. That is not an insignificant sum of money, but it represents, in most cases, a relatively small percentage of the cost of such facilities. Figured out over the life of the treatment plant, that is not an onerous burden to bear to achieve unpolluted streams.

The new regulations will apply to existing outlets of pollutants, not just new ones. Thus past investments in wastewater-treatment facilities, made to comply with high water-quality standards, well may be wasted because the need to achieve high standards no longer will exist.

THE RESULT of all this seems certain to be a major degradation in the quality of the water of Pennsylvania's streams and rivers. By shifting the place at which water-quality standards will be enforced from the discharge point to the intake point, the state will be opening the door to multiple increases in the quantity of pollutants being released into the state's waterways.

And perhaps most disturbing of all, this proposed lowering of water-quality standards has passed through the House Conservation Committee, the Senate Environmental Resources and Energy Committee, the Independent Regulatory Review Committee and a hearing before the Environmental Quality Board with hardly a whimper of protest. The board is expected to rule on the regulations in December or January.

Is this how the long, costly and, to a large extent, successful effort to improve the quality of the state's water resources is to end? Are the citizens of this Commonwealth prepared to accept, without a protest, the notion, intrinsic in these proposed regulations, that those sections of river and stream which are not being used for drinking can be used for polluting?

We don't think so. And we don't believe they knowingly would support regulations which contradict the intentions of the state's Clean Streams Law and the Federal Clean Water Act.

It isn't too late to stop this attempt to redirect the thrust of the state's water-quality efforts from one of protecting our water for the benefit of all to accommodating the economic considerations of a few. Too much is being given up in exchange for too little. The board should stop this effort to reverse years of progress in achieving clean streams before it becomes law and before it leads to other efforts in the same misguided direction.

HARRISBURG, PA., THURSDAY, APRIL 11, 1985

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Water quality

State standards take a step backward

It might sound simplistic, but we need to be reminded occasionally that water sustains life. - Walter Pomeroy of the National Audubon Society

THE AWFUL thing is that this particular reminder recently was directed at the Pennsylvania Environmental Quality Board, which, as its name implies, is entrusted with the task of maintaining the quality of the state's environment. Late last year, the EQB adopted revised water-quality standards that could undo the tremendous progress that has been made to clean up the commonwealth's waterways since the early 1970s.

Last week, Audubon, along with the Pennsylvania Federation of Sportsmen's Clubs, Sierra Club, National Wildlife Federation, Trout Unlimited and Del-Aware, formally petitioned the EQB to reverse its recent decision on water quality. The regulations also are the object of a suit filed by the Neshaminy Water Resources Authority in Bucks County.

And though the Thornburgh administration has pledged Pennsylvania's assistance in helping to clean up Chesapeake Bay, Maryland environmental officials are concerned that the revised standards may make that task more difficult. The Susquehanna River is the primary source of fresh water coming into the bay, bringing with it a substantial amount of phosphorous, which promotes algae growth and the depletion of oxygen in the water.

Prior to the enactment of the standards last December, the U.S. Fish and Wildlife Service provided five pages of objections to the then-proposed standards, noting that they "seem contrary to the goals of the Federal Water Pollution Control Act." One of those goals is the elimination of discharges of pollutants from the nation's navigable rivers by 1985.

THE environmental groups go further and maintain that the new EQB rules violate the National Clean Water Act and the state's own Clean Streams Act, as well.

In an unbelievable step backward in anti-pollution efforts, the criteria for determining water quality was moved from the point of discharge to the point of intake under the new EQB rules. In effect, the EQB has designated "all watercourses as disposal streams," according to Vickie Greenlee, executive director of the sportsmen's federation. "It damages the fishery and leaves no room for error in guarding the public health."

And this is not all. According to the fish and wildlife service, the revised regulations on allowable ammonia nitrogen would permit nearly a 2,000 percent increase in ammonia concentrations in certain cold water streams. EQB also was faulted for not adopting the criterion on total residual chlorine recommended by the Environmental Protection Agency. The fish and wildlife service charged EQB with "underestimating the significance" of chronic chlorine toxicity, particularly on aquatic life.

Under the guise of achieving cost savings in water treatment, the EQB has eviscerated the state's water-quality standards and made pollution lawful once again. Not only does the EQB need to be reminded of the life-sustaining qualities of pure water, it must be made to fulfill its role as guardian of the environment or be replaced with something that will.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801

RECE[illegible]
F[illegible]
EXECU[illegible]
NOV 20 1984

November 14, 1984

REFER TO ____________
REPLY DIRECT ____________

Environmental Quality Board
P.O. Box 2063
Harrisburg, Pennsylvania 17120

Dear Sirs:

The U.S. Fish and Wildlife Service has reviewed the Environmental Quality Board's proposed water quality standard amendments published in the Pennsylvania Bulletin on September 22, 1984. We submit the following comments for your consideration.

General

We note that the changes in the statewide water supply use criteria and statewide ammonia criteria are described as being beneficial to the Commonwealth because they will result in treatment cost savings. We question whether these cost savings justify the relaxation of the Commonwealth's water quality standards. The criteria for total dissolved solids, nitrate-nitrite nitrogen, phenolics and fluoride related to drinking water, as well as the ammonia criteria, have been in place for some time and, we assume, are currently being achieved by dischargers. To now allow a regression in the control of these forms of pollution would seem contrary to the goals of the Federal Water Pollution Control Act, which states that "it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985" (Section 101[a][1]).

We are not merely concerned with these relaxed standards on procedural or philosophical grounds, however. We believe your proposed changes to the water quality standards are especially significant in view of the fact that DER does not consider synergistic effects on aquatic organisms when setting effluent limits for individual National Pollution Discharge Elimination System (NPDES) permits. The toxicity of chlorine and ammonia may be affected by total dissolved solids; ammonia may break down in water to form nitrite and nitrate; nitrates join with phosphorous to create eutrophication in streams and lakes -- and these are only a few of the interactions that may become critically important to aquatic life if the proposed changes are implemented.

Specific

Section 93.5. Total Dissolved Solids

Our comments above, under "General," stating our objection to allowing a relaxation of standards in streams where the standards for potable water supply are already being met, apply to your proposal for total dissolved solids.

In addition, we feel that the provision to allow a less stringent osmotic pressure criterion based on bioassay or aquatic field studies could be a major loophole for dischargers. Bioassay data based upon LC50's or no-effect levels deal primarily with acute effects, i.e., whether or not mortality is observed over a relatively short period of time. Such studies ignore chronic impacts, such as reproductive failure, which are equally important in natural ecosystems. Aquatic field studies may also be abused by applicants, as it would be very simple to manipulate the study design to reveal as little impact from the discharge as possible.

A better system which would allow flexibility to permit applicants, while at the same time providing a clearer view of the potential impacts to aquatic life, would be to require both bioassay and aquatic field studies. If the discharge proved to be acutely toxic to aquatic organisms, the field studies would be unnecessary. However, if the bioassay revealed no acute impacts, aquatic field studies as described in 93.5(ii)(B) should be initiated.

To further increase the validity of the field studies, both quantitative and qualitative data should be collected on the specified biological parameters. Furthermore, DER should oversee design of the studies to ensure that the data collected will accurately reflect any impacts of the discharge on aquatic life.

Section 93.9. Ammonia nitrogen

The proposed revision would remove the existing criteria (ranging from "not more than 0.5 mg/l" to "not more than 1.5 mg/l"), currently applied to certain streams, and replace them with case-by-case statewide criteria based on the pH and temperature of the receiving stream. These new limits would range from 0.27 mg/l as total ammonia nitrogen at pH 9.00 and 30°C, to 27.2 mg/l at pH 6.25 and 5°C.

We are pleased to see that DER is expanding the regulation of ammonia discharges to a statewide basis. However, our comments above, under "General," stating our objection to relaxing criteria that are already being met, apply to this proposal for ammonia criteria.

We note that under the existing regulations (Section 93.9), the Am_1 criterion (instream concentrations of total ammonia nitrogen must not exceed 0.5 mg/l) is applied largely to streams with "Cold Water Fish" as the protected water use. Under the proposed change, a median pH of 7 and median temperature of 20°C is assumed for cold water fishery uses where actual instream data are unavailable. Using Table 1 of the proposed rulemaking (Maximum Allowed Concentrations for Ammonia Nitrogen), the cold water streams would be subjected to total ammonia concentrations of 9.95 mg/l. This is nearly a 2,000% increase in ammonia concentrations for these waters! For warmwater fisheries, currently protected by Am_2 (not more than 1.5 mg/l total ammonia nitrogen), the allowed ammonia concentration would be based on a pH of 7 at 25°C if instream data are unavailable. This translates to an instream ammonia concentration of 6.97 mg/l under the proposed changes, or a 460% increase over currently allowed concentrations.

We stress again that it is inappropriate to allow such a gross relaxation of standards where current criteria have provided for a higher level of water quality protection. We believe that the existing Am_1 and Am_2 criteria should be retained for streams to which they are currently assigned, unless the new proposal would result in a stricter ammonia standard.

Section 95.9. Phosphorous discharges to streams

Existing Chapter 93 assigns specific in-stream phosphorous criteria to about 20 streams or watersheds. Under Section 95.9, DER now proposes to eliminate these criteria, replacing them with effluent limitations imposed "whenever the Department determines that instream phosphorous, alone or in combination with other pollutants or instream conditions, contribute to impairment of designated uses as defined in Chapter 93."

Included among the reasons for imposing the existing specific in-stream criteria was "Documented in-stream nutrient related water quality impairments or oxygen depletion problems." The Department has reviewed six streams or watersheds which fell into this category and provides the following reasons for removing the specific criteria currently applied to these streams:

> "...the previously documented problems have not been found in recent studies. This could mean either that the problem has been remedied through previously imposed requirements or that the problems are intermittent depending on the variable factors. Further review of the data in light of improved scientific knowledge with respect to such conditions indicates that these other factors (that is, organics and/or stream physical conditions) may be, in some instances, potentially or wholly responsible for water quality degradation, and that additional study is needed to fully document a need for phosphorous control..."

We assume it is highly probable that the specific in-steam criteria set for these streams were indeed responsible for the apparent disappearance of the phosphorous problem -- that was supposed to be the goal of the criteria. Other factors could have been involved, but it would be imprudent to abandon the current criteria for these streams while DER conducts further studies.

We recommend that DER not delete the current specific criteria for these streams until it has completed an evaluation under Section 95.9 and recommended specific phosphorous control procedures for dischargers in the affected watersheds.

Statewide Recommendations - Total Residual Chlorine (TRC)

Based on bioassay data demonstrating the toxicity of TRC to aquatic organisms, EPA requested that DER consider adopting instream TRC criteria ranging from 8 ppb to 14 ppb. DER currently has no TRC regulations, and has decided not to accept EPA's recommendations to set limits on TRC concentrations. DER's reasons center on a lack of demonstrated toxic impacts from chlorine in Pennsylvania, and the difficulty in analyzing for TRC at EPA's recommended concentrations.

DER's assertion that chlorine has not yet produced any verifiable adverse impacts in Pennsylvania waters is based mainly on observations by DER regional offices and on the results of one study specifically designed to assess the effects of chlorine below a wastewater discharge on East Branch Brandywine Creek, Chester County. Rejecting EPA's recommended criteria simply because no effects have been documented in Pennsylvania would seem to be a questionable policy. What makes Pennsylvania's aquatic life and waters different from those in laboratory studies? If anything, one would expect the lack of laboratory control over other chemical and physical parameters such as ammonia, temperature, pH, and total dissolved solids, to increase the toxic effect of chlorine "in the field." Furthermore, DER's rationale fails to describe to what extent DER regional offices would have routinely tested for TRC in discharges; this information has a great bearing on how much credit should be given to the fact that regional offices haven't noticed a significant chlorine problem.

We believe you have underestimated the significance of chronic TRC toxicity, as discussed on page 4 of Mr. Shertzer's Rationale Paper on the chlorine standard:

> "Many recent studies on chronic toxicity are summarized in the EPA Draft Chlorine Criteria Document (1983) which concludes that ratios of acute to chronic TRC toxicities for continuous exposure vary from 1.2-9.8. This is contrary to data published by Arthur et al. (1975) which showed very little difference between mean LC_{50} values of 1, 4 and 7 days duration for 7 species of fish. The EPA review does go on to state that almost half of the experimental deaths which occur during a 96 hour exposure to chlorine occur in the first 12 hours, confirming chlorine is a fast acting toxicant rather than a chronic problem."

Comparing the EPA (1983) Draft Chlorine Criteria's acute-to-chronic TRC toxicity ratios against the results of Arthur et al. (1975) is like "comparing apples to oranges." The Arthur et al. (1975) data cited in this example was a study of acute, not chronic, TRC toxicity, and was in fact included in EPA's (1983) discussion of acute toxicity. "Chronic," in toxicity testing, is defined as "involving a stimulus that lingers or continues for a long period of time, often one-tenth of the life span or more (National Academy of Sciences/National Academy of Engineering, 1972, p. 520). Thus, toxicity testing over a period of 1, 4, or 7 days could hardly be considered chronic testing for freshwater fish. Please note that the freshwater fish studies EPA (1983) cites in its discussion of chronic toxicity involve such time periods as 21 and 43 weeks.

The last sentence in the above-cited paragraph also confuses the chronic vs. acute issue. Chlorine is certainly a fast-acting toxicant at certain concentrations, but chronic TRC toxicity testing addresses the possibility that there may be concentrations which, while sublethal, can exert other effects on organisms that can harm aquatic populations just as surely as death -- i.e., reproductive failure, reduced growth rate, abnormal pathology, etc. The EPA (1983) draft criteria (pages 7-11) has numerous examples of true chronic impacts from TRC, ranging from reduced spawning in an amphipod species to reduced spawning, decreased egg production, and reduced survival of progeny in freshwater fish. This data does not support the conclusion that TRC is not a "chronic problem."

In addition to our concerns with the preservation and enhancement of freshwater fishery resources, the U.S. Fish and Wildlife Service is actively involved in efforts to restore and maintain anadromous fish in several Pennsylvania rivers. Studies have shown that chlorine harms various life stages of a number of anadromous species. For example, Morgan and Prince (1977) demonstrated that 1.6% of blueback herring (Alosa aestivalis) eggs exposed to TRC concentrations less than 0.26 ppm produced larvae with abnormal vertebral columns. At TRC levels between 0.31 and 0.38 ppm, almost 15% of the larvae were abnormal. Morgan and Prince (1978), studying striped bass (Morone saxatilis), white perch (M. americana), and blueback herring, made the following observations (p. 640):

1) ". . . TRC can alter the hatching potential of a fish population by directly affecting numbers of eggs approaching hatch and hatching."

2) ". . . low concentrations of TRC affected larval length at hatch."

3) ". . . abnormal larvae were produced."

It would seem likely that chlorine has been a factor in the reduction of anadromous fish populations along the East Coast. DER should consider the possibility that by rejecting EPA's proposed TRC criteria, it may be perpetuating a water quality problem that works against the State and Federal goal of restoring and maintaining anadromous fish runs to Pennsylvania waters.

The possibility that TRC may be impacting Pennsylvania's aquatic life through chronic impacts is of great concern to us. "Fish kills," or sudden die-offs, caused by an acutely toxic discharge, are easily observed events. Chronic impacts are more subtle and difficult to identify, and may have a more severe impact on aquatic life in the long run. DER should not dismiss EPA's recommended TRC criteria without further studying the potential chronic effects on Pennsylvania's aquatic life.

Furthermore, we do not feel that analytical difficulty is a valid reason for not imposing chlorine criteria. Criteria should be set to whatever level is necessary for the protection of aquatic life and other water uses.

We strongly recommend that DER conduct further studies to document the effects of chlorine in Pennsylvania waters before it rejects EPA's recommended criteria. We would appreciate the opportunity to participate in designing and conducting these studies. Mrs. Cindy Rice of my staff would be happy to discuss this matter with you; she can be reached at (814) 234-4090.

Thank you for the opportunity to offer these comments.

Sincerely,

Charles J. Kulp

Charles J. Kulp
Field Supervisor

Literature Cited

EPA. 1983. Ambient Aquatic Life Water Quality Criteria for Chlorine (Draft). Criteria and Standards Division, U.S. Environmental Protection Agency, Washington, D.C.

Morgan, R. P. III, and R. D. Prince. 1977. Chlorine toxicity to eggs and larvae on five Chesapeake Bay fishes. Trans. Am. Fish. Soc. 106(4):380-385.

_____. 1978. Chlorine effects on larval development of striped bass (*Morone saxatilis*), white perch (*M. americana*) and blueback herring (*Alosa aestivalis*). Trans. Am. Fish. Soc. 107(4):636-641.

National Academy of Sciences/National Academy of Engineering. 1973. Water Quality Criteria 1972. EPA-R3-73-033. Washington, D.C.

Shertzer, R. H. 1984. Water quality standards rationale paper -- total residual chlorine. Pennsylvania Dept. of Environmental Resources, Div. of Water Quality. Harrisburg, PA.

cc:
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Ralph Abele, PFC, Harrisburg, PA
Gerald Pollis, EPA, Philadelphia, PA

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NESHAMINY WATER
RESOURCES AUTHORITY

EHB-1 10/79

COMMONWEALTH OF PENNSYLVANIA

ENVIRONMENTAL HEARING BOARD

Blackstone Building
First Floor Annex
112 Market Street
Harrisburg, Pennsylvania 17101
(717) 787-3483

NOTICE OF APPEAL

Any party desiring to appeal any action of the Department of Environmental Resources must file its Appeal with this Board at the above address within 30 days from date of receipt of notification of the Action.

1. Complete Name, Address and Telephone Number of Appellant:

Neshaminy Water Resources Authority
2875 Old York Road
P.O. Box 378
Jamison, Pennsylvania 18929
(215) 343-2800, Ext. 285

2. (a) Specify the action for which review is sought, the Department officials who took said actions, and the location of the proposed project including the municipality and county. Also, attach a copy of the letter, order or notification from which you are appealing. (b) Specify the date when the order or notice of the action appealed was received.

(a) Adoption by the Department of Environmental Resources (Environmental Quality Board of Amendments to 25 Pa. Code Sections 93 and 95 which eliminate the present phosphorous standards for the Neshaminy and Core Creeks. A copy of the revised regulation is attached as Attachment 1.

(b) This action occurred December 18, 1984.

3. We appeal for the following reasons: (Specify objections to the action of the Department. Objections not raised herein may be deemed waived pursuant to Rule 21.51(e). If the objections are not sufficiently specific, the appellee may move for a more specific pleading pursuant to Rule 21.84 or Appellant may be required to file the first pre-hearing memorandum. (Attach additional sheets as may be required.)

See Attachment 2

4. We hereby certify that we have served or mailed a copy of this appeal to
   - (X) (a) the Bureau of Litigation, P.O. Box 2357, 512 Executive House, 101 South Second Street, Harrisburg, PA 17120.
   - (X) (b) the Officer of the Department of Environmental Resources responsible for the action appealed, and
   - (   ) (c) if the appeal is from the grant of a permit, license, approval or certification, a copy to the recipient thereof.

The information submitted is true and correct to the best of my information and belief:

Lois Rez
SIGNATURE

*Signature of Appellant or Agent or Officer of Appellant if Appellant is not an individual. If you have authorized an attorney to represent you in this proceeding before the Board, please supply the following information:

John E. Flaherty, Jr., George J. Miller,
Lois Reznick
(NAME) (Type or Print)

Dechert Price & Rhoads
3400 Centre Square West
1500 Market Street
Philadelphia, PA 19102

(215) 972-3537
(AREA CODE) PHONE NO.

NOTICE: FAILURE TO SUPPLY ANY OF THE ABOVE INFORMATION MAY RESULT IN THE DISMISSAL OF YOUR APPEAL.

ATTACHMENT 1

RECEIVED
DEC 18 1984

TITLE 25. RULES AND REGULATIONS
PART 1. DEPARTMENT OF ENVIRONMENTAL RESOURCES
SUBPART C. PROTECTION OF NATURAL RESOURCES
ARTICLE II. WATER RESOURCES
CHAPTER 93. WATER QUALITY STANDARDS
CHAPTER 95. WASTEWATER TREATMENT REQUIREMENTS
CHAPTER 101. SPECIAL WATER POLLUTION REGULATIONS

* * * * *

§93.2. Scope.

(a) The provisions of this chapter set forth water quality standards for the waters of this Commonwealth. These standards are based upon water uses which are to be protected and shall be considered by the Department in its regulation of discharges.

(b) Where interstate or international agencies under an interstate compact or international agreement establish water quality standards regulations applicable to the waters of the Commonwealth more stringent than the regulations contained herein, said more stringent standards shall apply.

* * * * *

§93.3. Protected water uses.

* * * * *

TABLE 1

Symbol	Protected use
	* * * * *
	Water Supply
PWS	Potable Water Supply - Use by the public as defined by the Federal Safe Drinking Water Act, 42 U.S.C. §300F, or by other water users that require a permit from the Department under [35 P.S. §§711-716] The Pennsylvania Safe Drinking Water Act, 35 P.S. §§721.1-721.18, or 32 P.S. §§631-641, after conventional treatment, for drinking, culinary, and other domestic purposes, such as inclusion into foods (either directly or indirectly).

* * * * *

§93.5. Application of water quality criteria to discharge of pollutants.

* * * * *

(d) Application of osmotic pressure criterion for protection of aquatic life.

To protect aquatic life and irrigation where it occurs, the amount and composition of total dissolved solids in discharges into the surface waters of this Commonwealth shall be controlled such that the osmotic pressure of the receiving waters shall not exceed either the criteria listed in subparagraphs (i) and (ii):

(i) Fifty milliosmoles per kilogram at any time.

(ii) A less stringent osmotic pressure criterion established and based upon data obtained from bioassay or aquatic field studies conducted in accordance with the methodologies specified in clauses (A) or (B) respectively. In either case, the discharger shall submit a plan proposing the studies to be conducted; progress reports as the Department may require; and a report of the completed results of the testing including all data collected and all calculations made in recording, evaluating, and interpreting the data. The alternate methodologies are as follows:

(A) **Bioassays.** Data must be obtained from continuous flow bioassay tests conducted in a water environment which is equal to or closely approximates that of the natural quality of the receiving waters. A safe osmotic pressure for a test solution which simulates projected instream conditions will be determined by establishment of a no-effect level - maximum acceptable toxicant concentration - or by the determination of an experimentally derived application factor which would be applied to a 96-hour LC50 bioassay test result utilizing one or more representative important species of benthic macroinvertebrates and fishes obtained from commercially available strains or wild populations from unpolluted streams or impoundments. All remaining bioassay testing protocol shall be conducted in accordance with continuous flow methodologies outlined in EPA Ecological Research Series Publication, EPA-660/3/75-009, Methods of Acute Toxicity Tests with Fish, Macroinvertebrates, and Amphibians (April, 1975); EPA Environmental Monitoring Series Publication, EPA-600/4-78-012, Method for Measuring the Acute Toxicity of Effluents to Aquatic Organisms (July, 1978); Standard Methods for the Examination of Water and Wastewater (15th Edition, 1980); Standard Method of Test for ASTM D 1345-59 (Reapproved 1970 and published in the 1975 Annual Book of ASTM Standards) - Part 31 -Water; or Biological Methods for the Assessment of Water Quality, ASTM Special Technical Publication 528, 1973. The use of any other methodologies shall be subject to the prior written approval by the Department.

(B) **Aquatic field studies.** The studies may be used when the stream above the source of total dissolved solids supports a balanced, indigenous aquatic community. Instream sampling stations must be located directly upstream and downstream of the source of total dissolved solids and free of harm from other abatable point and nonpoint sources of pollution. Biological parameters including but not limited to benthic macroinvertebrates and fishes, must be collected qualitatively or quantitatively, or both, on a quarterly basis for a minimum of 1 year. Sample replication should be adequate to determine precision of the data collected and to conduct appropriate statistical tests. All remaining biological field methods shall be conducted in accordance with Standard Methods for the Examination of Water and Wastewater (15th Edition, 1980); EPA-Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents, EPA-670/4-73-001, July, 1973, Cornelius I. Weber, ed.; Techniques of Water Resources Investigation of the United States Geological Survey, Chapter A4, Methods for Collection and Analysis of Aquatic Biological and Microbiological Samples by K. V. Slack, et al., 1973, EPA-Model State Water Monitoring Program, edited by Water Monitoring Task Force, R. L. Crim, Chairman, EPA-440/9-74-002, June, 1975. It must be demonstrated that the existing point source discharge of total dissolved solids will not result in any demonstrable adverse effect on the ecological community structure when upstream and downstream biological data is compared.

(e) Application of potable water supply use criteria.

(1) Water quality criteria for total dissolved solids (TDS_1), nitrite-nitrate nitrogen (N), phenolics $(Phen_1)$ and fluoride (F_1) established for the protection of Statewide potable water use [may] shall be applied so instream criteria are met at the point of withdrawal for existing potable water supply systems, and at the point of projected withdrawal for new potable water supplies identified by the State Water Plan or a river basin commission plan as necessary to satisfy the demands of an existing or new potable water supply within the next 20 years. Criteria necessary to protect other designated uses shall be met at the point of wastewater discharge.

(2) The Department will include in every public notice of a draft NPDES permit published pursuant to Section 92.61 (relating to public notice of permit application and public hearing) the location of the nearest downstream potable water supply considered in establishing proposed effluent limitations under this section, or a finding that no potable water supply will be affected by the proposed discharge.

(3) Wastewater discharges to waters designated for special protection in §93.9 (relating to designated water uses and water quality criteria) will continue to be regulated under §95.1 (relating to general requirements).

(4) Whenever a point of projected withdrawal for a new potable water supply not previously considered is identified by an update to the State Water Plan or a river basin commission plan, or by the application for a water allocation permit from the Department, the Department will notify all dischargers of total dissolved solids, nitrite-nitrate nitrogen, phenolics and flouride of any more stringent effluent limitations needed to protect such point of withdrawal. The discharger shall meet any more stringent effluent limitation in accordance with a schedule approved by the Department. The Department will issue orders directing dischargers to achieve compliance, when necessary.

§93.7. Specific water quality criteria.

* * * * *

TABLE 3

Parameter	Symbol	Criteria
		* * * * *
Ammonia Nitrogen	Am	The maximum total ammonia nitrogen concentration at all times shall be less than or equal to the numerical value [corresponding to the un-ionized ammonia nitrogen concentration given by 0.12 x f(T)/f(pH), where] given by: un-ionized ammonia nitrogen $(NH_3\text{-}N)$ x $(\log^{-1}[pK_T - pH] + 1)$, where: un-ionized ammonia nitrogen = 0.12 x f(T)/f(pH) $f(pH) = 1 + 10^{1.03(7.32-pH)}$

3

$f(T) = 1, T \geq 10^{\circ} C$

$$f(T) = \frac{1 + 10^{(9.73-pH)}}{1 + 10^{(pK_{\underline{T}}-pH)}}, \qquad T < 10^{\circ} C$$

and

$$pK_{\underline{T}} = 0.090 + \frac{2730}{(T + 273.2)}$$, the dissociation constant for ammonia in water.

The average total ammonia nitrogen concentration over any 30 consecutive days shall be less than or equal to the numerical value [corresponding to the un-ionized ammonia nitrogen concentration given by 0.025 x f(T)/f(pH), where] given by:

un-ionized ammonia nitrogen (NH_3-N) x ($\log^{-1}[pK_T-pH] + 1$), where:

un-ionized ammonia nitrogen = 0.025 x f(T)/f(pH)

$f(pH) = 1, pH \geq 7.7$

$f(pH) = 10^{0.74(7.7-pH)}, pH < 7.7$

$f(T) = 1, T \geq 10^{\circ} C$

$$f(T) = \frac{1 + 10^{(9.73-pH)}}{1 + 10^{(pK_{\underline{T}}-pH)}}, \qquad T < 10^{\circ} C$$

[Total Ammonia Nitrogen (NH_3-N) + un-ionized Ammonia Nitrogen (NH_3-N) x [$\log^{-1}(pK - pH) + 1$]]

The pH and temperature used to derive the appropriate ammonia criteria shall be determined by one of the following methods:

1) Instream measurements, representative of median pH and temperature (July through September); or

2) Estimates of median pH and temperature (July through September) based upon available data or values determined by the Department.

[In the absence of data, a median value of pH 7 and median temperatures of 20°C for cold water fishery designated uses and 25°C for warm water fishery designated uses shall be assumed. The median temperature that shall apply to trout stocking fisheries shall be assumed to be 25°C.]

For purposes of calculating effluent limitations based on this value the accepted design stream flow shall be the actual or estimated lowest 30 consecutive day average flow that occurs once in 10 years.

* * * * *

Fluoride	F_1	Not to exceed 2.0 mg/l
	F_2	Not to exceed 0.05 of the 96 hour LC_{50} for representative important species as determined through substantial available literature data and/or bioassay tests tailored to the ambient quality of the receiving water.

* * * * *

Osmotic Pressure	OP	Not to exceed 50 milliosmoles per kilogram or criteria developed using Section 93.5(d).

* * * * *

Phenolics (except Section 307(a)(1) 33 U.S.C. §1317(a)(1), Priority Pollutants)	$Phen_1$	not to exceed 0.005 mg/l
	$Phen_2$	maximum 0.02 mg/l
	$Phen_3$	not to exceed 0.1 mg/l

* * * * *

TABLE 4

Symbol	Specific Water Quality Criteria
* * * * *	
Am	Ammonia Nitrogen
* * * * *	
F_1	Fluoride
* * * * *	
OP	Osmotic Pressure

* * * * *

§93.9. Designated water uses and water quality criteria.

Editor's Note: Under to 1 Pa. Code §3.31 (relating to publication of official synopsis in lieu of full text), a synopsis of the following change is being published in lieu of reproducing Drainage Lists A through Z in their entirety:

Delete all ammonia nitrogen (Am$_1$, or Am$_2$) and all phosphorus (P$_1$, P$_2$ or P$_3$) criteria from Drainage Lists A through Z.

Specific changes in water use designations proposed for Drainage Lists C, E, G, I, J, Q, T and W are as follows:

Except as provided in §93.5(d) and (e) of this title (relating to the application of water quality criteria to discharge of pollutants), the following tables shall display designated water uses and water quality criteria. The county column in Drainage Lists A through Z indicates the county in which the mouth of the stream is located.

* * * * *

Drainage List C
Delaware River Basin in Pennsylvania
Delaware River

Stream	**Zone**	**County**	**Water Uses Protected**	**Exceptions to Specific Criteria**
Delaware River				
* * * * *				
Brodhead Creek	Main Stem, From Michael Creek to LR 45060 bridge	Monroe	TSF	None
Brodhead Creek	Main Stem, From LR 45060 bridge to Delaware River	Monroe	TSF, MF	None

* * * * *

Drainage List E
Delaware River Basin in Pennsylvania
Delaware River

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Delaware River				
	* * * * *			
Delaware Estuary and Tidal Portions of Tributaries	Head of Tide to Burlington-Bristol Bridge	Bucks	WWF, MF; Delete LWS and IRS	Delete Alk_1, Bac_1, DO_2, pH_1, $Temp_2$, TDS_1, Am, Add Alk_3, Bac_5, Ch_4, DO_3, Hd_2, $MBAS_1$, pH_2, Rad, TDS_3, $Temp_5$, $Temp_7$, TON, Tur_1
	* * * * *			
Delaware Estuary and Tidal Portion of Tributaries	From Burlington-Bristol Bridge to R.M. 108.4 (about 1 Mile Below Pennypack Creek)	Bucks, Philadelphia	WWF, MF; Delete E, LWS, IRS, and WC	Delete Alk_1, Bac_1, DO_2, pH_1, $Temp_2$, TDS_1, Am Add Alk_3, Bac_4, Ch_4, DO_3, Hd_2, $MBAS_1$, pH_2, Rad, TDS_3, $Temp_5$, $Temp_7$, Tur_2, TON
	* * * * *			
Delaware Estuary and Tidal Portion of Tributaries	About 1 Mile Below Pennypack Creek to About 2.6 Miles Above Schuylkill River (at Big Timber Creek in NJ)	Philadelphia	WWF, (Maintenance Only); MF (Passage Only); Delete E, WC, LWS and IRS	Delete Alk_1, Bac_1, DO_2, pH_1, $Temp_2$, TDS_1, Am Add Alk_4, Bac_4, Ch_3, DO_4, Hd_1, $MBAS_2$, pH_2, TDS_3, $Temp_5$, $Temp_7$, TON, Tur_2, Rad

Delaware River

• • • • •

Delaware Estuary and Tidal Portion of Tributaries	From 2.6 Miles Above Schuylkill River (Big Timber Creek in NJ) to Philadelphia-Delaware County Line	Philadelphia Delaware	WWF (Maintenance Only); MF (Passage Only); N Delete E, WC, PWS, LWS, and IRS	Delete Alk_1, Bac_1, DO_2, F, N, pH_1, $Phen_1$, $Temp_2$, TDS_1, Am Add Alk_4, BAC_4, Ch_2 at R.M. 92.47, DO_4, $MBAS_2$, pH_2, $Phen_2$, Rad, TDS_4, $Temp_5$, $Temp_7$, TON, Tur_2

Drainage List G
Delaware River Basin in Pennsylvania
Delaware River

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Delaware Estuary and Tidal Portion of Tributaries	From Philadelphia-Delaware County Line to Pennsylvania-Delaware State Line	Philadelphia Delaware	WWF (Maintenance Only); MF (Passage Only); Delete E, PWS, LWS, IRS, WC	Delete Alk_1, Bac_1, DO_2, F, N, pH_1, $Phen_1$, $Temp_2$, TDS_1, Am Add Alk_4, Bac_4, DO_4, $MBAS_2$, pH_2, $Phen_2$, TDS_4, $Temp_5$, $Temp_7$, TON, Tur_2, Rad

• • • • •

Delaware Estuary

• • • • •

Chester Creek				
East Branch Chester Creek	Basin, Source to Goose Creek	Delaware	TSF	None
Goose Creek	Basin	Chester	WWF	None
East Branch Chester Creek	Basin, Goose Creek to West Branch Chester Creek	Delaware	TSF	None

• • • • •

Drainage List I
Susquehanna River Basin in Pennsylvania
Susquehanna River (North Branch)

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Tunkhannock Creek				
South Branch Tunkhannock Creek				
* * * * *				
Ackerly Creek	Main Stem	Lackawanna	TSF	None
Unnamed Tributaries to Ackerly Creek	Basins	Lackawanna	CWF	None
* * * * *				
Wyalusing Creek				
East Branch Wyalusing Creek	Basin, Source to Pettis Creek	Susquehanna	CWF	None
Pettis Creek	Basin	Susquehanna	WWF	None
East Branch Wyalusing Creek	Basin, Pettis Creek to Mouth	Susquehanna	CWF	None

* * * * *

Drainage List J
Susquehanna River Basin in Pennsylvania
Lackawanna River

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Lackawanna River				
* * * * *				
Roaring Brook	Basin, Source to Elmhurst Reservoir	Lackawanna	HQ-CWF	None
Roaring Brook	Basin, Elmhurst Reservoir to Mouth	Lackawanna	CWF	None

* * * * *

Drainage List Q
Ohio River in Pennsylvania
Allegheny River

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Allegheny River				

* * * * *

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Brokenstraw Creek				
Hare Creek	Basin, Source to Scotia Street Bridge (Corry Borough)	Warren	CWF	None
Hare Creek	Main Stem, Scotia Street Bridge to Mouth	Warren	WWF	None
Unnamed Tributaries to Hare Creek	Basins	Warren/Erie	CWF	None

* * * * *

Drainage List T
Ohio River in Pennsylvania
Kiskiminetas River

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
Kiskiminetas River				

* * * * *

Stream	Zone	County	Water Uses Protected	Exceptions to Specific Criteria
McGee Run	Main Stem, Source to Upstream Boundary of Derry Borough	Westmoreland	CWF	None
McGee Run	Main Stem, Upstream Boundary of Derry Borough to Mouth	Westmoreland	TSF	None

* * * * *

Ohio River	Main Stem	Beaver	WWF; Add N	Shown Below

Exceptions to Specific Criteria for Ohio River Main Stem

Delete CN and F;

Add:

Barium - Total barium shall not exceed 1.0 mg/l.

Cadmium - Total cadmium shall not exceed 0.01 mg/l.

Chloride - Chloride shall not exceed 250 mg/l.

Cyanide - Total cyanide shall not exceed 0.025 mg/l; free cyanide shall not exceed 0.005 mg/l.

Fluoride - Total fluoride shall not exceed 1.0 mg/l.

Nitrite - Nitrite shall not exceed 1.0 mg/l as N.

Selenium - Total selenium shall not exceed 0.01 mg/l.

Silver - Total silver shall not exceed 0.05 mg/l.99

Radionuclides - Gross total alpha activity (including radium-226 but excluding radon and uranium) shall not exceed 15 picocurie per liter (pCi/l) and combined radium-226 and radium-228 shall not exceed 5 pCi/l; provided that specific determinations of radium-226 and radium-228 are not required if gross particle activity does not exceed 5 pCi/l. Concentration of total gross beta particle activity shall not exceed 50 pCi/l; the concentration of tritium shall not exceed 20,000 pCi/l; the concentration of total Strontium-90 shall not exceed 8 pCi/l.

Mercury - Total organism body burden of any aquatic species shall not exceed 0.5 micrograms/gram as total mercury. Total mercury concentration (unfiltered) in any water sample shall not exceed 0.2 micrograms/liter.

PCB - Total PCB shall not exceed 1 nanograms per liter; however, when 9the level in water is less than the practical laboratory quantification level, a fish flesh body burden level in excess of 2 ppm shall be cause for concern and further investigation.

* * * * *

Mahoning River	Main Stem	Lawrence	WWF	Shown Below

Exceptions to Specific Criteria for Mahoning River Main Stem

Delete the entire list except Am.

Add:

As, Ch_2, Cr, DO_2, F, Pb, Mn, N, S, $Temp_4$, $TDS_1$9

pH - Not less than 6.0 and not more than 8.5.

Total Iron - Nor more than 1.0 mg/l.

Threshold Odor Number - Not to exceed 24 at 60°C as a daily average.

Total Cyanide - Not to exceed 0.025 mg/l.

Free Cyanide - Not to exceed 0.005 mg/l.

Phenolics - Not to exceed 0.010 mg/l.

Cadmium - Not to exceed 0.01 mg/l (total).

Total Chromium - Not to exceed 0.1 mg/l.

PCB - Not to exceed 1 nanogram per liter.

Copper - Not to exceed 0.02 mg/l (total).

Nickel - Not to exceed 0.1 mg/l (total).

Zinc - Not to exceed 0.2 mg/l (total).

§95.4. Extensions of time to achieve water quality based effluent limitations.

(a) The Department may grant a discharger an extension of time to achieve water quality based effluent limitations imposed under Chapter 93 (relating to water quality standards) for specific pollutants, if all of the following requirements are met:

(1) The discharge was in existence on October 8, 1979, or the date on which the water quality standards applicable to the specific pollutants were originally promulgated, whichever is later;

(2) The discharger either: (i) has installed Best Demonstrated Technology (BDT) as defined in this Section; or (ii) has installed Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), or new source standards of performance, as applicable, established by the Administrator of the U.S. Environmental Protection Agency pursuant to 33 U.S.C. §§1314(b) and 1316 (or their equivalent as determined by the Department) and will install BDT in accordance with a schedule acceptable to the Department;

(3) The installation of BDT will not result in the discharger achieving the water quality based effluent limitations for the pollutant(s) in question;

(4) The discharger demonstrates, to the satisfaction of the Department, additional efforts to meet the water quality based effluent limitations by:

- **(i) Modifying process materials and/or production methods;**
- **(ii) Utilizing an alternate point of wastewater discharge - including the use of land application of wastewater;**

(iii) Implementing wastewater management practices such as wastewater recycling, wastewater re-use, and good housekeeping;

(iv) Conducting research into the application of new or innovative wastewater treatment technologies or management practices - including carrying out pilot-plant operations of sufficient size and duration to demonstrate adequately the technical feasibility of such treatment technologies or management practices.

(b) Subsection (a) of this Section shall not apply to any of the following:

(1) New sources as defined under to 33 U.S.C. 1316,

(2) Toxic pollutant effluent standards or prohibitions established under 33 U.S.C. 1317(a);

(3) dischargers which have a history of non-compliance witn the Clean Streams Law, (35 P.S. 691.1-691.1001) or the regulations promulgated thereunder, this article, or the terms and conditions of permits or Department orders issued pursuant thereto. A discharger's timely installation of BDT and the other methods set forth in subsection(a)(4) of this section which do not result in achievement of water quality based effluent limitations, shall not be considered noncompliance for the purposes of this subsection.

(c) Requests for such time extensions shall be in writing, and shall contain information sufficient to demonstrate that the requirements specified in subsection (a) have been, or will be, met.

(d) Extensions shall be for a limited period of time, not to exceed five years, which will be specified by the Department in permits issued under the Clean Streams Law, 35 P.S. 691.1-691.1001. A discharger's extension of time may be renewed, for a period of time for each extension not to exceed 5 years, if the requirements for the extension continue to be met.

(e) During the initial extension period, and subsequent extension renewal, the discharger shall submit periodic progress reports to the Department, at a frequency acceptable to the Department, but in no case less than once every year detailing its efforts to meet the water quality based effluent limitations in question.

(f) Failure by the discharger to implement any of the requirements contained in Subsections (a) - (e) shall result in the imposition and enforcement by the Department of the required water quality based effluent limitations.

(g) The following definition shall apply for the purpose of implementing Subsections (a) - (f) above:

(1) Best Demonstrated Technology (BDT) - That combination of wastewater treatment technologies and management practices which have been demonstrated to the satisfaction of the Department to achieve the most effective degree of pollutant reduction applicable to the type of wastewater and pollutants in question. The determination of BDT shall be based upon the documented results of either full-scale installation and operation of treatment technologies and management practices, or 2) investigation and pilot-plant operations carried out by the discharger.

In no case shall BDT be less stringent than Best Available Technology Ec Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), or s. of performance for new sources for such wastewater and pollutants as determined by the Administrator of the U.S. Environmental Protection Agency under 33 U.S.C. 1314(b) and 1316.

§95.5. Treatment Requirements for Discharges to Waters Affected by Abandoned Mine Drainage:

(a) For wastes discharged to waters polluted by abandoned coal mine drainage, so that the applicable water quality criteria are not being met and designated water uses are not being achieved to the extent that aquatic communities are essentially excluded, and where such pollution cannot be remedied by controlling known, active discharges, the following degrees of treatment shall be provided:

(1) Sewage (as defined in 35 P.S. 691.1-69.1001), shall receive secondary treatment, as defined by this Chapter.

(2) Industrial waste (as defined in 35 P.S. 691.1-691.1001), shall achieve one of the following degrees of treatment, as appropriate, which are defined under 33 U.S.C. 1314(b) and 1316(b):

(i) Best Conventional Pollutant Control Technology (BCT);

(ii) Best Available Technology Economically Achievable (BAT);

(iii) Standards of Performance for New Sources

(b) A greater degree of treatment will be required to such waters where

(1) The water quality of the receiving water has or is expected to improve significantly.

(2) The minimum degree of treatment required would cause pollution in downstream waters, so that designated stream uses in these downstream waters would not be achievable.

§95.6. Discharges to lakes, ponds and impoundments.

(a) Where deemed necessary to control eutrophication, the Department will impose phosphorus [discharge limitations,] controls based upon a Department approved phosphorus loading -eutrophication response model on any new or modified point source discharges to waters that are tributary to, or that discharge directly to a lake, pond or impoundment with a detention time of 14 days or more[.] based on average annual stream flow. **The limitations shall be no more stringent than would be necessary to control eutrophication, assuming the adequate management of other nutrient sources under Chapter 102 (relating to erosion control), and applicable provisions of the water quality management plan prepared and maintained under Section 91.31 (relating to comprehensive water quality management).**

(b) When deemed necessary, the Department may require existing dischargers to [install phosphorus control facilities] control phosphorus at the time of their next application for renewal of their NPDES permit.

(c) Detention times shall be determined by the use of average annual daily stream flow and normal pool volume. In the absence of actual stream flow records, an average annual daily stream flow of 1.5 CFS per square mile of drainage area shall be used.

(d) Land disposal of wastewater shall be utilized on a continuous or seasonal basis whenever technically and financially feasible and environmentally sound to prevent the direct discharge of phosphorus into lakes, ponds, and impoundments.

§95.9. Phosphorus discharges to streams.

(a) Phosphorus [effluent limitations] controls for waste discharges to streams shall be established under subsection (b) whenever the Department determines that instream phosphorus, alone or in combination with other pollutants or instream conditions, contribute to impairment of designated uses as defined in Chapter 93 (relating to water quality standards). No determination made under this subsection shall constitute a final Department action with respect to any person until a specific treatment or control requirement is imposed under subsection (b).

(b) Whenever the Department makes a determination under subsection (a), the following phosphorus control procedures shall apply:

(1) New point sources and existing point sources without phosphorus controls shall limit phosphorus discharges to a maximum of 2 mg/l. More stringent controls than 2 mg/l may be imposed where the Department determines it to be necessary. [More stringent] Controls may be [required] adjusted to establish equity between [new and existing] all point sources under subsection (b)(4).

(2) Existing point sources with phosphorus controls shall continue to operate them at present levels, provided, however, that such control may be [liberalized] adjusted to establish equity between [new and existing] all point sources with subsection (b)(4).

(3) If after the imposition of the point source controls described in this subsection, the Department determines that more stringent controls are needed to prevent impairment of designated uses, the Department may impose more stringent limitations on point sources. More stringent controls will not be imposed where the Department finds that existing non-point source phosphorus loadings prevent attainment of designated uses.

(4) The Department may [reallocate] adjust point source effluent limitations among [new and existing] all point sources [such] provided that the point source phosphorus loading does not exceed the total of existing loads from point sources with phosphorus controls in place plus additional contributions from other new or existing point sources [with a maximum effluent concentration of 2 mg/l.].

(5) Land disposal of wastewater shall be utilized on a continuous or seasonal basis wherever technically and financially feasible and environmentally sound to prevent the direct discharge of phosphorus into streams.

(c) Point source effluent limitations for phosphorus control may be imposed on a seasonal basis.

ATTACHMENT 2

The Neshaminy Water Resources Authority appeals from this action for the following reasons:

1. The Neshaminy Water Resources Authority (NWRA) is a municipal authority organized pursuant to the Municipality Authorities Act, 53 P.S. §302, by Bucks County, to manage the water resources of the Neshaminy water basin.

2. The Neshaminy water basin includes Neshaminy Creek and its tributary, Core Creek, which are listed on Drainage List E, 25 Pa. Code §93.28.

3. Using funds provided by the state, the federal government and from the sale of bonds, NWRA constructed PA 620 and PA 617 on Neshaminy Creek. The reservoirs formed behind these dams are multipurpose reservoirs used for flood control and public recreation.

4. The recreational uses are presently limited to non-contact uses, because of pollution, but the water quality in the Lake is improving and NWRA is attempting to include contact recreation as a future use.

5. Both Neshaminy Creek and Core Creek had phosphorous limitations of .03 mg/l under Chapter 93 as it existed prior to the revision at issue herein.

6. Under the present revision, these limitations will be removed, as will the present general phosphorous limitations.

7. Adoption of the revised regulations violated DER's fiduciary responsibilities under Article I Section 27 of the Constitution of the Commonwealth of Pennsylvania in that (a) by this action DER has sanctioned degradation of the water of the Commonwealth; and (b) this action will not preserve the natural resources of the Commonwealth.

8. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to Section 4(3) of the Pennsylvania Clean Streams Law (35. P.S. §691.4(3)) which states that the objective of the Clean Streams Law is both to prevent further pollution of the waters of the Commonwealth and to reclaim and restore to a clean, unpolluted condition every stream in Pennsylvania that is polluted.

9. The adoption of these revised regulations removing phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to law because the Core and Neshaminy Creeks had been polluted and, since the imposition of the phosphorous condition, the water quality of Neshaminy and Core Creeks has improved.

10. The adoption of these revised regulations removing phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to Section 4(2) of the Pennsylvania Clean Streams Law (35 P.S. §691.4(2)) which states that clean, unpolluted water is absolutely essential so that Pennsylvania will have adequate out-of-door recreational facilities.

11. The adoption of these revised regulations removing phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to law because it will lead to increased eutrophication of the Creeks and Lakes which presently provide out-of-door non-contact recreational opportunities to the residents of Bucks and adjoining counties.

12. The adoption of these revised regulations removing the phosphorous limitations is arbitrary, capricious, an abuse of discretion and contrary to law in that it will prevent attainment of the NWRA and Bucks County goal, previously supported by DER, of upgrading the use of the Lakes for contact recreation use.

13. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to Section 5(b) of the Pennsylvania Clean Streams Law which requires DER to formulate rules and regulations to implement Section 4.

14. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to Section 5(a)(4) of the Pennsylvania Clean Streams Law (35 P.S. §691.5(a)(4)) in that it was against the weight of scientific and technical knowledge.

15. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to Section 5(a)(1) because it fails to properly provide water quality management and pollution control in the Neshaminy watershed as a whole.

16. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to Section 5(a)(2) of the Pennsylvania Clean Streams Law because it will adversely affect present and future use of the Neshaminy basin waters.

17. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to 25 Pa. Code §93.6 because pursuant to the new regulations, water in the Neshaminy basin will contain phosphorous in levels inimical to present and future water uses.

18. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to law in that it will diminish the usefulness of NWRA's Lakes to the extent

that it will constitute a taking of NWRA's property without just compensation.

19. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capricious, an abuse of discretion and contrary to law in that DER's scientific and technical conclusionsare contrary to the scientific evidence.

20. The adoption of these revised regulations removing the phosphorous limitations was arbitrary, capriciou an abuse of discretion and contrary to law in that the regulations will result in degradation of the quality of Neshaminy and Core Creeks and Lakes.

RECEIVED
JAN 18 1985
NESHAMINY WATER
RESOURCES AUTHORITY

IN THE COMMONWEALTH COURT OF
PENNSYLVANIA

NESHAMINY WATER RESOURCES AUTHORITY, : NO. C.D.

Petitioner :

v. :

COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL RESOURCES, and COMMONWEALTH OF PENNSYLVANIA, ENVIRONMENTAL QUALITY BOARD, :

Respondents :

NOTICE TO PLEAD

TO: COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL RESOURCES and COMMONWEALTH OF PENNSYLVANIA, ENVIRONMENTAL QUALITY BOARD

You are hereby notified to plead to the enclosed Petition for Review within twenty (20) days from service hereof or a default judgment may be entered against you.

George J. Miller

IN THE COMMONWEALTH COURT OF
PENNSYLVANIA

NESHAMINY WATER RESOURCES AUTHORITY	:	NO. C.D.
Petitioner	:	
v.	:	
COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL RESOURCES, and COMMONWEALTH OF PENNSYLVANIA, ENVIRONMENTAL QUALITY BOARD,	:	
Respondents	:	

PETITION FOR REVIEW IN THE NATURE OF AN APPEAL AND IN THE NATURE OF A REQUEST FOR INJUNCTIVE AND DECLARATORY RELIEF

This is a Petition for Review in the Nature of an Appeal and in the Nature of a Request for Injunctive and Declaratory Relief, pursuant to PA.R.A.P. Chapter 15, in which Petitioner Neshaminy Water Resources Authority asks this Court to set aside certain regulations adopted by the Commonwealth of Pennsylvania, Environmental Quality Board, to enjoin the Commonwealth of Pennsylvania, Department of Environmental Resources from putting those regulations into effect, and to render certain declaratory judgments. In support of these requests, Petitioner allege as follows:

1. Petitioner Neshaminy Water Resources Authority

("NWRA") is a municipal authority organized by Bucks County pursuant to the Municipality Authorities Act of 1945, 53 P.A. §301 et seq. The NWRA is located at 2875 Old York Road, P.O. Box 378, Jamison, PA 18929.

2. Respondent Commonwealth of Pennsylvania, Department of Environmental Resources ("DER") was created pursuant to the Act of December 3, 1970, P.L. 834, No. 275, §20, as amended 71 P.S. §510-1. It is located at Fulton Building, 3rd and Locust Streets, Harrisburg, PA 17120.

3. Respondent Commonwealth of Pennsylvania, Environmental Quality Board ("EQB") was created pursuant to the Act of December 3, 1970, P.L. 834, No. 275 §§14 and 20, as amended, 71 P.S. §§180-1 and 510-20. It is located at 221 N. 2nd Street, 3rd Floor, Harrisburg, PA 17101.

4. The Commonwealth Court has jurisdiction over this matter pursuant to 42 PA. C.S.A. §761 and 42 PA. C.S.A. §763.

5. The actions that are the subject of this Petition are the December 18, 1984 adoption by the EQB of amendments to 25 Pa. Code Chs. 93 and 95 which amendments have the effect of deleting water quality limitation for phosphorous for the Neshaminy and Core Creeks, and the actions taken by

DER to make those amendments effective.

6. NWRA was organized by Bucks County to manage the water resources of the Neshaminy watershed.

7. The Neshaminy watershed includes the Neshaminy and Core Creeks, which are listed on Drainage List E, 25 Pa. Code §93.28.

8. Using funds provided by the Commonwealth, the federal government and from the sale of bonds, NWRA constructed dams on the Neshaminy (PA 617) and Core (PA 620) Creeks. The reservoirs formed behind these dams are multi-purpose reservoirs, used for flood control and public recreation. Lake Galena, part of Peace Valley Park, is located on the Neshaminy Creek; Lake Luxemberg, part of Core Creek Park, is located on Core Creek.

9. At present, the recreational uses of these Lakes are limited to non-contact uses, because of pollution, but water quality had been improving and NWRA had intended to obtain approval for contact recreational uses in the future.

10. Both Neshaminy Creek and Core Creek had phosphorous limitations of .03 mg/l under Chapter 93 as it existed prior to the revision at issue herein.

11. Under the revisions at issue here in these limitations will be removed, as will the present general phosphorous limitations.

12. These actions violate the EQB and the DER's fiduciary responsibilities under Article I, Section 27 of the Constitution of the Commonwealth of Pennsylvania in that:

(a) by these actions, the EQB and the DER sanctioned degradation of the waters of the Commonwealth; and

(b) these actions will not preserve the natural resources of the Commonwealth.

13. These actions were arbitrary, capricious, abuses of discretion and contrary to the constitution and law in that it will diminish the usefulness of Bucks/NWRA's Lakes to the extent that it will constitute a taking of NWRA's property without just compensation.

14. These actions were arbitrary, capricious, abuses of discretion and contrary to the following sections of the Pennsylvania Clean Streams Law, (35 P.S. §691 et seq.):

(a) Section 4(3), 35 P.S. §691.4(3) which states that the objective of the Clean Streams Law is both to prevent further pollution of the waters of the Commonwealth and to reclaim and restore to a clean, unpolluted condition every stream in Pennsylvania that is polluted.

(b) Section 4(2), 35 P.S. §691.4(2), which states that clean, unpolluted water is absolutely essential so that Pennsylvania will have adequate out-of-door recreational facilities.

(c) Section 5(b), 35 P.S. §691.5(b) which requires the formulation of rules and regulations to implement Section 4.

(d) Section 5(a)(4), 35 P.S. §691.5(a)(4) which requires that rules and regulations be based on scientific and technical knowledge.

(e) Section 5(a)(1), 35 P.S. §691.5(a)(1) because it fails to properly provide water quality management and pollution control in the Neshaminy watershed as a whole.

(f) Section 5(a)(2), 35 P.S. §691.5(a)(2), because it will adversely affect present and future use of the waters in the Neshaminy watershed.

15. These actions were arbitrary, capricious, abuses of discretion, contrary to law and regulations in that:

(a) pursuant to the new regulations, water in the Neshaminy basin will contain phosphorous in levels inimical to present and future water uses;

(b) the scientific and technical conclusions on which these actions are based are contrary to the scientific evidence;

(c) the regulations will result in degradation of the quality of Neshaminy and Core Creeks and Lakes Galena and Luxemberg;

(d) the Core and Neshaminy Creeks had been polluted and, since the imposition of the phosphorous limitations the water quality of Neshaminy and Core Creeks and their lakes has improved;

(e) it will lead to increased eutrophication of the Creeks and Lakes which presently provide out-of-door non-contact recreational opportunities to the residents of Bucks and adjoining counties;

(f) it will prevent attainment of the NWRA and Bucks County goal, previously supported by DER, of upgrading the use of the Lakes for contact recreation use.

16. The actions will cause NWRA irreparable harm.

17. NWRA has no adequate remedy at law.

18. Entry of the declaratory judgment requested by NWRA will terminate this controversy.

WHEREFORE, NWRA respectfully requests this Court to grant the following relief:

(a) Set aside and vacate the revisions to 25 Pa. Code, Chapters 93 and 95 which affect phosphorous control generally and as applied to the Neshaminy watershed; and

(b) Preliminarily and permanently enjoin DER from putting into effect any revisions which reduce the current phosphorous limitations for the Neshaminy watershed; and

(c) Declare that these actions were arbitrary, capricious, abuses of discretion and contrary to law and the

Pennsylvania Constitution and are void and of no effect; and further declare that the EQB and DER may take no action that could cause degradation of water of the Neshaminy watershed; and

(d) Grant such other relief as may be just and proper in the circumstances.

Respectfully submitted,

George J. Miller

John D. Flaherty, Jr.
George J. Miller
Lois Reznick
Dechert Price & Rhoads
3400 Centre Square West
1500 Market Street
Philadelphia, PA 19102
(215) 972-3456

Attorneys for Petitioner NWRA

Dated: 1/17/85

AFFIDAVIT

Tracy Carluccio, being duly sworn according to law, deposes and says that she is the Executive Secretary of the Neshaminy Water Resources Authority; that she is authorized to take this affidavit on its behalf; and that the information in the foregoing Petition for Review is true and correct, to the best of her knowledge, information and belief.

Tracy Carluccio
Tracy Carluccio

Sworn to and Subscribed
before me this 11th day
of January, 1985
Norma Reichert
Notary Public

My Commission Expires:
November 30, 1987

IN THE COMMONWEALTH COURT OF
PENNSYLVANIA

NESHAMINY WATER RESOURCES AUTHORITY :
: NO. C.D.
Petitioner :

v. :

COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL RESOURCES, and COMMONWEALTH OF PENNSYLVANIA, ENVIRONMENTAL QUALITY BOARD, :

Respondents :

CERTIFICATION

I hereby certify that I am this day serving the foregoing Petition for Review by certified mail on the Attorney General, Office of the Attorney General, Strawberry Square, 16th Floor, 4th and Walnut Streets, Harrisburg, PA 17120 and the Department of Environmental Resources, Fulton Building, 3rd and Locust Streets, Harrisburg, PA 17120, and the Environmental Quality Board, 221 N. 2nd Street, 3rd Floor, Harrisburg, PA 17101, which service satisfies the requirements of PA.R.A.P. 1514(c) and PA.R.A.P. 121.

Dated:

George J. Miller
John E. Flaherty, Jr.
George J. Miller
Lois Reznick
Dechert Price & Rhoads
3400 Centre Square West
1500 Market Street
Philadelphia, PA 19102
Attorneys for Petitioner NWRA

Mrs. JOHNSON. So, in general, do you believe that States ought to have the right to move back to Federal standards if the Federal standards are lower than the State standards and if the State votes to do so?

Ms. BABCOCK. Well, in the Pennsylvania case they seem to be going the other way. I, frankly, do not know how EPA is responding to what is going on.

Mrs. JOHNSON. Do you mean going below the Federal standards?

Ms. BABCOCK. Going below basically what the information and criteria would allow in section 304(a), with what EPA's recommendations would be.

Mrs. JOHNSON. In the other situation where State standards have been higher, do you believe that the proper role of the Federal Government is to require the maintenance of those higher standards or do you think the States ought to have the right to adopt the Federal standards if their legislature chooses to do so?

Ms. BABCOCK. There is some flexibility in the Clean Water Act for the downgrading of those standards, albeit limited flexibility. We do not want to see that flexibility increased in any way. The State has to come in with fairly dire economic showings, has to show that background conditions merit——

Mrs. JOHNSON. Why do you want to penalize the States that were, in a way, ahead of their time and sometimes set standards that were higher because they did not have as much information? Then the Feds come along 5 years later with more information and set a floor. Why should it be our job to penalize those who were out front? Why shouldn't that State legislature have the right to look at their standards, look at the Feds' standards, and make the decision without interference from us?

Ms. BABCOCK. If the State can make the showing required under the act, I would have no problem with that. I think——

Mrs. JOHNSON. Wait a minute. You are missing my point.

Ms. BABCOCK. Pardon me.

Mrs. JOHNSON. Why should they be required by us to make that showing to us? If we have set a national standard, then why shouldn't the State, then, have the right to exceed that or the right to fall back to that?

Ms. BABCOCK. Because the State water quality standards basically fill in the interstices of the statute which are not met by the effluent limitations. If you do believe in the goals of the statute, which are to move toward fishable, swimmable waters, eventually zero discharge, I think there is an interest in keeping that State water quality standard as stringent as possible.

In fact, the problem we have right now is that the States are not moving under 303(c), as they are meant to do in their 3-year reviews, to promulgate not only more stringent standards, as I think the act would require them to do, but simply standards for which EPA has already issued criteria and information and directed them to publish standards.

Mrs. JOHNSON. This is for the most part a theoretical discussion, but I am interested in what your mind set is.

My colleague from Minnesota just used the argument of economics—that we must keep people doing things in cold climates so that they will be on the same economically competitive terms with the producers in the warm climates.

You see, you have a problem in States where they rushed ahead of the process because they were so anxious to get started and set higher standards. Now if you don't allow them the right to move back to the Federal standard, then you forever commit—and we are not talking theory here; we are talking reality—many little companies out there that cannot compete economically because you are not going to allow that State to move back if they care to. Now I am not saying they would; I am not saying it is practical, but I am saying that the very argument that justifies what Mr. Oberstar says also supports the flexibility of States to move back to the required national standard.

Ms. BABCOCK. Just so we understand, water quality standards and effluent limitations focus on different things. I am having trouble conceptually with having a State's water quality standards moved back to a Federal effluent limitation. They do come together in section 301(b)(1)(C) and in section 302 where EPA can be driven to set more stringent effluent limitations based on a water quality standard. A water quality standard looks to the quality of the receiving water and what is necessary for the aquatic life in that water.

Mrs. JOHNSON. We will not pursue this now because I must leave shortly.

Ms. BABCOCK. OK.

Mrs. JOHNSON. I may have been using the wrong terminology. This is my first term on this subcommittee. But I can tell you out there in the real world there is not a hell of a lot of difference.

Ms. BABCOCK. I understand that.

Mr. VAN PUTTEN. May I respond?

The first question I would want to ask in that situation is whether those dischargers have been able to achieve that amount of pollution control reduction. The effluent limitation guidelines on the national level represent EPA's national interpretation of what the industry as a whole is capable of achieving.

As the Supreme Court has said, that implies that more particularized standards for any facility are even better and, if the discharger has been able to achieve them, then it becomes a backsliding question.

Mrs. JOHNSON. Well. OK, you see, some have and some haven't. When you have a situation where one State's requirements are higher than the neighboring State's requirements, then the former is at a competitive disadvantage. I have companies being underbid 25 percent by competitors in other States with less strigent standards. I have lost companies because surrounding States were not implementing as strongly as we are.

For a lot of reasons that is beginning to change, in part because of EPA's very strong enforcement policy, on which I congratulate them wholeheartedly, but it does appear to me that we may, as we see other States comply, find that the problem is in our own State standards, because we wrote them before the Federal standards were written.

When we look at those, I firmly believe we ought to have the right to rewrite them to meet Federal standards. We have been one of the most progressive State legislatures in the Nation, and I would not want to pass a law here that did not allow my legislature to make those redeterminations when Connecticut family business—these are small family businesses—have taken it on the chin because we wanted to be out there in front of the pack and clean up our rivers, which we are doing.

However, I do not want somebody else's mind set to say that this is good for the world, not good for us. You cannot come back to it even though now you recognize through experience it is a good thing. That is all. I want to be sure that that principle that States have the right to move back to the Federal standards, if they choose to do so, is a firm principle that we do not override.

Mr. OBERSTAR. If the gentlelady would yield, the Federal Government does not set stream standards.

Mrs. JOHNSON. Well——

Mr. OBERSTAR. So that option is still available to States to adjust their stream standards.

Mrs. JOHNSON. That is right, but it does not help when a State bureaucracy will not respond to legitimate pleas for relief.

Mrs. BABCOCK. There is additional flexibility in there. A permittee can seek a variance from that effluent limitation that has been driven to a higher level because of a State water quality standard, and in part that showing can be based on economic conditions.

I agree, and I think your concern is a very, very legitimate concern.

Mrs. JOHNSON. Eventually, I will come to understand a little bit better how these things fit together.

However, for instance, in your testimony you want to press States: Once you have achieved this, you must achieve this, you must achieve this. Well, I hear that now from my small companies. We have gotten here, and now we automatically have to do this. My people are saying, "Hey, we are way ahead of the other guy in the State next door."

I think it is very important that people who are interested in the environment do not let that blind them to the flexibility that States need to deal with the reality that they face while meeting national standards.

I do not want a law that automatically ratchets up toward perfection when we are on different paths toward perfection and at different points on those paths.

Ms. BABCOCK. If I could just explain the amendment that I was proposing here for the committee's consideration, it was not to ratchet or make more stringent existing standards. It was to fill in gaps where certain States have not yet even issued water quality standards. We are talking about some very nasty materials out there.

Mr. STANGELAND. If the gentlelady would yield——

Mrs. JOHNSON. Yes, I will.

Mr. STANGELAND. I know what she is getting at, and we had testimony here last year. It is hard to recall it exactly, but there was a stream in Colorado, and Colorado set a water quality standard for it. There was a discharger on the stream that cleaned it to the point where trout swam in it. So it was pretty clean, but it still did not equal the water quality standard that Colorado had set. Even with trout swimming, the State had a higher standard. The EPA did not allow Colorado to downgrade the standards in that stream.

There is a problem, and I am not exactly sure where it is or how it comes about, but I distinctly recall that testimony. That is something we have to look at. As I recall, it was brought out in the testimony, I think, of Mr. Eidsness—was it Eidsness?

Ms. BABCOCK. Yes; that's correct.

Mr. STANGELAND. He came in and EPA was requesting at that time to allow downgrading, and everybody's hackles went up, but there are some instances where—as the gentlelady says—some States went out before all the technology was available and they set standards, and they set standards too stringent really for what the overall standard should have to be, if you follow what I am saying.

We are just looking for some modest flexibility, not that we want to start to pollute the streams again.

Ms. BABCOCK. Again, I think the flexibility is there in the act in a variety of ways and does not need to be expanded. What I am talking about is the need to promulgate standards in the first instance where there are none, regulating things like mirex and toxic pollutants that right now are not being covered by State water quality standards.

The problem is in the nonpoint source program where the first responsibility under that program for a State is to identify those waters that are not meeting State water quality standards because of nonpoint source pollution. If you do not have a State water quality standard for a particular pesticide or for heavy metals, for arsenic or something like that, you cannot make that initial evaluation, and those waters will not be in the program. Nonpoint source pollution will not be addressed in those waters. It is to try to fill in the gaps.

States like Connecticut, New York, Florida, California, Wisconsin have done a very good job of issuing State water quality standards. There are, unfortunately, a lot of States that have not done such a good job, and it is try to catch them up into the process and bring them into a more uniform national picture.

Mr. STANGELAND. I thank the lady for yielding.

Mrs. JOHNSON. Thank you.

What I hear you saying, then, is that all States must meet the BPT and BAT standards, and they have not yet. Is that what you are saying?

Ms. BABCOCK. Not quite. What I am saying is that I would like——

Mrs. JOHNSON. Because that is what we are all committed to——

Ms. BABCOCK. All dischargers must meet those standards. What I am suggesting is that all States should uniformly have water quality standards for pollutants that are found in nonpoint source pollution. Right now only some States have water quality standards that address those pollutants. Most States do not.

I am trying to get all States——

Mrs. JOHNSON. You are talking about the nonpoint source pollution?

Ms. BABCOCK. That's correct. That is all I am talking about.

Mrs. Johnson. And there is no Federal requirement for those standards?

Ms. Babcock. Well, I would interpret 304(a) and 303(c) as putting some obligation on a State to come up with the standards, but it is simply not happening.

Mrs. Johnson. Taking those standards for nonpoint source pollution and taking BPT and BAT for the direct dischargers, what I am saying is that, beyond those, States should have a right to set their water quality standards and they should have the right to drop their water quality standards, if they had them high and find them unlivable. That is my point.

I want to be sure that we do not do anything in this act that would interfere with the States' rights and opportunity to do that, if they decide to do so.

Ms. Babcock. That authority already exists in the statute—in EPA's regulations.

Ms. Johnson. My concern is that there be nothing that we do to change the law to put into place a process that would compromise that.

Ms. Babcock. It would not. The amendment that I am proposing would fit into that regimen. It would be subject to the same ability of a State to relax a water quality standard if they can meet the showings required by EPA.

Mr. Stangeland. Has the gentlelady concluded her questioning?

Mrs. Johnson. In just a moment. I'm sorry, I was listening to Ms Balocock.

You are saying that in order to drop it they must make the showing to EPA?

Ms. Babcock. EPA approves State water quality standards.

Mrs. Johnson. That's right.

Ms. Babcock. And EPA authorizes under certain specific conditions a State to downgrade their State water quality standards, if a State can make that showing.

Mrs. Johnson. OK, that is the point I am making. Why should they have to make a showing to the Federal Government? Why should the Federal Government have the power to judge State standards over the national standards? When they make that showing, they do have to meet very much more stringent criteria. Meanwhile a State that has set no water quality standards above those minimums is under no pressure.

Ms. Babcock. Forget above and below the minimum. What we are trying to do here, what I am trying to do here with this proposed change, is to bring all States into parity. So Connecticut, New York, and New Jersey——

Mrs. Johnson. That is exactly the point. If you have a State above parity, then that State should have the right to say, "Hey, we made a mistake. This is too tough. We want to come down," and they should not have to go to the Federal Government for permission.

Ms. Babcock. This is a national program.

Mrs. Johnson. That's right, but as long as they are meeting national standards, then the Federal Government should give them permission to set their water quality standards, which they have the right to set wherever they want as long as they meet these minimum standards.

Ms. **Babcock**. There are, as Mr. Oberstar said, there are no national water quality standards. They are set State by State and they are approved by the Administrator of EPA. They are approved on the basis of a showing that they will meet the goals of the act.

Mrs. **Johnson**. That's right, but once the goals of the act have been met——

Ms. **Babcock**. Oh, if we meet the zero discharge goal, we all get to go home. [Laughter.]

Mrs. **Johnson**. I think we disagree. [Laughter.]

Ms. **Babcock**. I think we do, too. I would be delighted to sit down with you and discuss it further.

Mrs. **Johnson**. I think there is a point at which——

Ms. **Babcock**. I understand your concern.

Mrs. **Johnson** [continuing]. People have a right to consider their economic interests. I do not think that it needs to conflict with our environmental concerns of this Nation.

Ms. **Babcock**. I would agree.

Mrs. **Johnson**. I think we have to be very careful not to abrogate those rights.

Ms. **Babcock**. I would agree, and that is the only way this law is going to work—is to make it consistent.

Mr. **Oberstar**. Will the gentlelady yield?

Mrs. **Johnson**. I will not only yield; I am done. [Laughter.]

Mr. **Oberstar**. Is the gentlelady's proposal that after Connecticut's stream standards have been approved by the Administrator of EPA, that the State, any State, should have the right unilaterally to change that standard without going back to the Administrator and asking that they be——

Mrs. **Johnson**. So long as it does not go below the requirements——

Mr. **Oberstar** [continuing]. Yes. OK, granted, but——

Mrs. **Johnson** [continuing]. Of the nonpoint source pollution section.

Mr. **Oberstar**. Is it your suggestion that, once the EPA has signed off and is now a partner with the State, that the State can downgrade on its own without going back to EPA?

Mrs. **Johnson**. The only decision that EPA should make is that it does still comply with the national standards. Yes, they can go back. They should be required to go back to make sure that they don't start out great and then fall below through their own process. EPA should prevent them from going below, but it should be their decision as to where they——

Mr. **Oberstar**. Without any rejection authority——

Mrs. **Johnson**. No rejection authority above national standards. That way, you see, you have the same situation as you pointed out to me between the Minnesota guy and the southern guy in the BOD's.

Mr. **Oberstar**. Well, they are two different situations, but I understand what the gentlelady's proposal is. We will have to think that one through very—that has some very serious implications.

Ms. **Babcock**. Yes.

Mr. **Stangeland**. The gentleman from Texas, Mr. DeLay.

Mr. **DeLay**. Unfortunately, I am under the dilemma that many freshmen get under, where I think we are almost out of time and I have many, many questions to ask.

I must ask two questions or maybe I only have time for one.

Mr. Van Putten, you speak on the bottom of page 6 of the dynamic state of our knowledge about toxic chemicals. Would you describe in a little more detail what you mean by dynamic state of knowledge?

Mr. **Van Putten**. I mean new information that substances which we once may not have had great concern for may, indeed, pose a problem. I mean new information about how these substances behave once released into the aquatic environment. Do they adhere to the sediments in the river? Do they bioaccumulate in the fish? That is, are they found at higher levels in the fish than they are in the sediments? Do they last a long time?

The big problem in the Great Lakes is with persistent toxic chemicals which end up in the Great Lakes and then pose a hazard for years and years. Those are the kinds of things that I was referring to.

Mr. **DeLay**. Would the opposite be true. If we were suddenly to learn that a chemical is nowhere nearly as toxic as originally thought, even to the point of not posing a significant risk to health or environment? How should that new information be reflected in a permit being reissued where the original permit contains stringent limits applicable to that chemical?

Mr. **Van Putten**. I think I answered this question once before, but I will try again.

I would be concerned about two things. First of all, I would have to grant your assumption that a chemical could be proven safe. I think that is very unlikely.

Second, I would be concerned about the relationship between that individual pollutant and other pollutants in the discharge. The example I used before was that if you allow increased discharges of solids from a pulp and paper mill, you are likely also to be allowing increased discharges of toxic pollutants that adhere to those solids.

Third, I would want to know whether or not the facility has been able to meet those limitations.

Mr. **DeLay**. But what if they met all that criteria?

Mr. **Van Putten**. If they met all those criteria, then I would not have a problem with it.

Mr. **DeLay**. Is there any way in H.R. 8 that alleviates that problem in the reissuance of permits?

Ms. **Van Putten**. H.R. 8 as currently constituted has nothing that speaks to backsliding.

Mr. **DeLay**. I mean in your proposal on backsliding.

Mr. **Van Putten**. Our proposal on backsliding does allow relief in certain circumstances. One of the circumstances that we are concerned with, however, is the one you raise: What does new information mean? The EPA regulations that we have a problem with, or at least their interpretation of the regulation, is on this very point: Under what circumstances will we deem it to be new information sufficient to allow backsliding?

Mr. DELAY. Do you have any feeling for those industries that may have gone through all this and gone out of business, and then you find that the toxic situation is not what you thought it to be?

Mr. VAN PUTTEN. I guess it is a question of——

Mr. DELAY. Should the Federal Government be involved in reimbursing those industries that were put out of business by——

Mr. VAN PUTTEN. You pose the fundamental dilemma in the regulation of toxic pollutants, carcinogens, mutagens, and teratogens, and that is that we don't have perfect knowledge about their effects.

What we do, particularly policymakers such as yourself, is act in the face of that imperfect knowledge. Which way do we want to err, knowing that we are going to err in some cases? We may find that we have overcontrolled some pollutants. On the other hand, we may find that we have undercontrolled others. That is the fundamental dilemma. As far as what to tell a facility owner 20 years from now if he went broke complying with permit limits for a pollutant later found not to be harmful, that would be very difficult. On the other hand, what do you tell somebody who is dying from cancer, because we failed to control a carcinogen? "Gee, we're sorry we didn't do something about that a decade ago"?

Mr. DELAY. I guess what I hear you saying is we weigh jobs against cancer on this body.

Mr. STANGELAND. Thank you.

I have just one last question.

I want to thank the panel for its patience. I do not believe we would have held you quite as long had we not canceled some of the other panels, but we do want to have a good dialog.

Mr. Van Putten, you corrected me when I said I saw water quality standards as the foundation of the act, and you corrected me to say that the standards are technology based. Let me set a scenario.

I guess it bothers me to use a term like "downgrading" because that is a red flag, and it bothers me to use a term like "backsliding" because that is a red flag. I wish we could find better terminology.

You have a stream and you develop a water quality standard for that stream. You have a discharger who wants to discharge into that stream, but the BAT is not developed. Therefore, the discharger sits down with the permit writer in EPA and they write a permit, which I understand is called a BPJ, and they get their permit, so they start discharging.

Then the BAT is developed. Now any industry can come in and under BAT become a discharger. Suppose that the BAT is much less stringent than the permit written under BPJ. Isn't it reasonable to assume that you are causing an economic disincentive—and this is somewhat to the point you made, Mr. Walker, but I think you made it in reverse—an economic disincentive for that first guy in, who got his permit written on much more stringent standards and finds out that the technology-based standards are much less stringent and he is not allowed to adjust to equal all the other dischargers in that stream?

Mr. VAN PUTTEN. I understand the hypothetical. My answer is that if the costs of continuing to operate and maintain the facility are wholly disproportionate to the kinds of costs that EPA considered when they set the national BAT standards, that is a circumstance where we think backsliding is appropriate. That is a situation where backsliding is allowed by the current EPA regulations on this point.

Mr. STANGELAND. How do you judge and determine wholly disproportionate?

Mr. VAN PUTTEN. Somebody is going to have to sit in judgment on that point. It is going to be the permit writer.

Mr. STANGELAND. It should be enough to make that adjustment so long as you are on a technology-based standard and you are protecting or enhancing the integrity of that stream.

Any more questions?

Mr. Oberstar.

Mr. OBERSTAR. No, no further questions.

Mr. STANGELAND. I just want to thank you for your testimony and your patience. I know that we do not agree in all facets, but, hopefully, we can work on it. I think our goals are all the same—that we want to clean up the Nation's water. Some of us come at it from a different point of view, but we do thank you for your time and your patience.

[Whereupon, at 4:10 p.m., the subcommittee recessed to reconvene at the call of the Chair.]

[The prepared statements of Mr. Walker, Mr. Lloyd, Ms. Holmes, Mr. Van Putten, and Ms. Babcock follow:]

SIERRA
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330 Pennsylvania Avenue, S.E., Washington, D.C. 20003 (202) 547-1141

STATEMENT OF IAN WALKER

CHAIRMAN OF THE NEW JERSEY CHAPTER

OF THE

SIERRA CLUB

BEFORE THE SUBCOMMITTEE ON WATER RESOURCES

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

ON H.R. 8

THE REAUTHORIZATION OF THE CLEAN WATER ACT

APRIL 25, 1985

"When we try to pick out anything by itself, we find it hitched to everything else in the universe." *John Muir*
National Headquarters: 530 Bush Street, San Francisco, California 94108 (415) 981-8634

Mr. Chairman, I am Ian Walker, Chair of the New Jersey Chapter of the Sierra Club. On behalf of the 350,000 members of the Club, I want to thank you for this opportunity to appear before you today to discuss the reauthorization of the Clean Water Act.

The Sierra Club has joined with twelve other environmental, local government, and private organizations in support of three amendments to H.R. 8. Our proposed amendments to the Clean Water Act legislation would:

- eliminate the ten-year NPDES permit renewal period;
- add an antibacksliding provision; and
- add the control of non-point pollution to three construction grants set-aside programs.

A copy of our letter of March 11, 1985 from thirteen environmental, local government, and industry organizations supporting the above amendments, to Subcommittee Chairman Rep. Roe is attached to my testimony.

The amendments supported by our coalition are included in H.R. 1509, introduced by Rep. James Oberstar. H.R. 1509 is identical to H.R. 8, except that it removes the language extending the ten-year NPDES permit, adds an antibacksliding provision, and funds the control of non-point runoff pollution through the three exiting set-aside programs. We also wish to thank Reps. Edgar, Mineta, and Moody for demonstrating their support of these amendments by cosponsoring H.R. 1509.

Because of limited time, I would like to discuss in detail only one of the four amendments to H.R. 8 that we are asking this Subcommittee to adopt: the antibacksliding provision. Before moving to that subject, however, I would like to say a few words about one other issue that is of grave concern to us, the extension of the NPDES permit term to ten years.

THE TEN-YEAR NPDES PERMIT

We strongly oppose any amendment to the Clean Water Act that will weaken the law. The proposed extension of the NPDES permit term from five to ten years severely undermines our national commitment to clean water and should be opposed by the members of this Subcommittee. When the extension of the NPDES permit renewal period was originally proposed, the supporters of this change asserted that it would not undermine the permit process if sufficient "reopeners" were added. Reopeners would allow the permit standards to be strengthened during the term of the permit, if the need arose. Unfortunately, the protection of reopener language is an illusion. If adopted, the result will be to put the brakes on our national commitment to clean up water for these reasons:

- at least 18 states only adopt or revise water quality criteria at the time the permit comes up for renewal; and,

- the states that already require permits to be reopened prior to renewal rarely do so.

Reopening the permit prior to its expiration date places the burden of proof for justifying new effluent limits on the state. There is no question in our minds that by extending the NPDES term to ten years we would be locking ourselves into ten or more years of pollution at today's levels. In effect, this means ten more years before the water quality standards would be reviewed and upgraded to reflect new water quality data or water quality problems.

ANTIBACKSLIDING

One of the basic premises of the Clean Water Act is that the law should never allow water quality to be degraded below its current condition. I don't believe that the Congress intended to allow the states to simply maintain the status quo in the cleanup of our nation's waters. The goal of the Clean Water Act is supposed to be the eventual elimination of pollutant discharges.

With the apparent approval of EPA, backsliding from water quality based standards and the granting of seasonal waivers are becoming major problems. In effect, the assimilative capacity of rivers and lakes is becoming the determining factor when writing, renewing, reissuing or modifing NPDES discharge permits. Unfortunately, H.R. 8 is silent with respect to the problem of backsliding from BPJ or BEJ limits and nationally uniform BPT or BAT effluent limitations guidelines.

Let me dramatize what may happen to the future of the Clean Water Act if Congress does not adopt new language to prohibit backsliding. Suppose an NPDES permit is issued to company A requiring it to clean-up its effluent discharge in order to bring the river up to the state's water quality based effluent standard for that river. Shortly after company A has made the necessary investment and met their discharge permit standards, suppose that company B, a competitor located just across the river, comes up for its NPDES permit renewal. The permit writer, seeing that this segment of the river now exceeds the state's water quality standards, issues company B an NPDES permit which is much more lenient than the one company A received. Company B's has been allowed to benefit from the investment of its competitor across the river. While it is clear that the state permit writer has adhered to the letter of the law by not allowing company B to degrade the river's water quality below the established standard, he or she has violated one of the basic goals of the Clean Water Act by allowing the degradation of water quality. In addition, thanks to this loophole in the Clean Water Act, company B has gained a wonderful economic advantage over its competitor across the river!

In other instances, a major industry may shut down causing other industries along the same segment of a waterway to petition the state for an increase in their level of pollution discharges. Weakening the discharge standards because a river or lake is now cleaner (or colder), and therefore able to accommodate additional pollutants, is also not within the spirit of the Clean Water Act.

The State of Wisconsin, for example, wants to make backsliding a part of their water quality regulations. Their new water quality regulation would allow dischargers to turn off existing treatment facilities and increase pollutant discharges to save operating and maintenance costs. The state's new regulation says that a river's wasteload allotment may be reallocated "when a wasteload allocated permit expires, is revoked, or surrendered," in order to, "[p]rovide for existing dischargers to raise their existing allocations in the appropriate stream segment towards categorical effluent limitation levels." As far as the State of Wisconsin is concerned, any time water quality improves beyond the minmum level needed to meet water quality standards, polluters can increase their pollutant discharges. Again, we don't believe that this is how the Congress intended the Clean Water Act to work.

A draft report to EPA, recently obtained through a Freedom of Information Act request, demonstrates that seasonal waivers are yet another way the backsliding loophole is being exploited by some states. Of 46 states responding to a survey by the authors of this report, at least 29 states "frequently" use seasonal waivers. In many states, it has become a common practice to grant industries and municipalities winter waivers that allow higher levels of pollution in their discharges. This usually happens during the colder months when rivers have a greater assimilative capacity.

The report by Urban Systems Research & Engineering, Inc. of Cambridge, Mass.[1], lays out the extent of the states' use of seasonal permits as follows:

4 states consider seasonal permits in ALL or ALMOST ALL cases;
10 states consider seasonal permits for ALL MUNICIPALITIES;
16 states consider seasonal permits in CERTAIN COMMON TYPES of situations;
6 states consider seasonal permits ON REQUEST from the permittee or in certain uncommon types of cases;
5 states consider seasonal permits only in exceptional situations; and,
5 states find seasonal permits NOT APPLICABLE to their conditions.

The continued use of backsliding is tearing a giant hole in our national water pollution cleanup effort! If we ever hope to reach the Clean Water Act's goal of achieving waters safe for fishing or swimming, backsliding must be stopped! It's a bad idea! It is clear that we will never reach our clean water goals if the backlsiding loophole is not closed.

The Clean Water Act needs to be amended so as to prohibit the weakening of NPDES discharge permits when they are renewed, reissued, or modified, and to prohibit the granting of seasonal waivers.

In some rare instances, however, the original permit was written without the benefit of adequate scientific data upon which to base the discharge standards. Therefore, when the permit comes up for renewal, and the firm can make the case that the discharge standards were not scientifically valid, and the permit limits could be relaxed without causing damage to water quality, then an adjustment could be made. However, backsliding should not be allowed merely because additional assimilative capacity is available, or because of changes in waste load allocations.

FUNDING FOR CONTROL OF NON-POINT RUNOFF POLLUTION

The runoff from farms, city streets, and construction sites is a source of half of the water pollution in America. H.R. 8 provides a good beginning for the control of runoff water pollution. Although H.R. 8 authorizes funding for runoff control, there is little likelihood that in this time of fiscal austerity the funds will be appropriated for this badly needed program. Without proper funding, the control of non-point runoff will continue to be the nation's major unsolved water pollution problem.

The Sierra Club recommends that state and local governments be allowed to use the existing "set-aside" funds, currently made available through the construction grants program, for the control of runoff. For example, if the control of non-point pollution were made a part of the innovative and alternative technologies set-aside program, the growing amounts of phosphorus and nitrogen reaching our rivers and lakes might be controlled without building expensive tertiary water treatment plants. The rural communities' set-aside program and the governors' set-aside program might also be made available to address these cost effective non-point pollution control alternatives.

In Colorado, there is a good example of how controlling non-point runoff pollution can help solve serious water quality problems without a large expenditure of funds. The Dillon Reservoir, which provides the City of Denver with one-half of its drinking water, is fed by a stream that, despite the best efforts of the state, was not meeting the established water quality standards. At first, it appeared that the state would have to require the industries along the stream to go beyond Best Available Technology standards, which might require the installation of more advanced treatment facilities. In order to avoid more costly alternatives, the industries along the stream joined together to clean up non-point pollution sources and agreed to restrict future point and non-point discharges. We are told that the stream is now meeting the established water quality standards without having to resort to purchasing additional costly treatment equipment.

Funds for the implementation of a program to control non-point runoff pollution could be made available to the states through the three set-aside programs -- innovative and alternative technologies (Subsection 205(i)), rural communities (Subsection 205(h)), and the Governor's (Subsection 201(g)(1). The innovative and alternative technologies set-aside program should be kept at its current funding level of 4 percent, rather than reducing it to 2 percent, and then to zero, as proposed in S. 652. Contrary to what we are being led to believe, the I & A program is working very well. According to EPA, there have been 3,092 grants awarded between FY 1979 and FY 1983. During that time, 91 percent of the $405.5 million has been spent. Thirty states are using all of their allotted funds in the I & A set-aside program. Twenty states are returning part of these funds because they have no way to use the money under the limitations of this program. Adding the control of non-point runoff to these accounts would give the state greater flexibility in the use of these funds.

The federal government is a major contributor of non-point runoff pollution. There should be a program to require that such agencies as the Departments of Transportation, Agriculture, and Interior control non-point runoff when implementing their programs. Activities of these federal agencies are a major contributor of non-point pollution runoff. For example, the Federal Highway Administration could effectively control non-point runoff from all federally funded highway construction and rehabilitation projects through its regulatory process. To ensure compliance with the Act, a provision should be added to the Clean Water Act to allow citizen suits against the above-mentioned federal agencies if their actions contribute to non-point pollution.

THE CORPS 404 DREDGE AND FILL PERMIT PROGRAM

The members of the Sierra Club are very concerned about the poor performance that the Corps of Engineers has demonstrated in carrying out Section 404 of the Clean Water Act. The 404 program under the Corps is not working. We are continuing to lose our wetlands at an increasing and alarming rate. According to the Fish and Wildlife Service, there were approximately 215 million acres of wetlands in the lower 48 states before the settlement of the United States. By the mid-1970's only 99 million acres of wetlands remained. In the last 20 years alone the nation lost 9 million acres of wetlands -- an area about the size of New Jersey.

In a March 1984 report on the status of our nation's wetlands, the U.S. Fish & Wildlife Service called upon public agencies, private industry, and private groups and individuals to take immediate action to protect the remnants of our vanishing wetlands. We join in the Service's call for action at all levels of government to stop the mismanagement of the nation's wetlands.

The Sierra Club will soon be completing a report on the loss of wetlands in New Jersey, due largely to the failings of the Corps' 404 program. Copies of this report will be delivered to the members of this subcommittee as soon as it is completed. We hope that the Public Works Committee will look into this growing problem with an eye to amending the Clean Water Act to avert the continued loss of our wetlands.

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[1]. Draft report, "State Experience With Water Innovations and Potential For Increased Use," prepared for the Environmental Protection Agency by Urban Systems Research & Engineering, Inc., Cambridge, Mass., January 7, 1985.

AMERICAN RIVERS CONSERVATION COUNCIL o ASSOCIATION OF METROPOLITAN
SEWERAGE AGENCIES o CLEAN WATER ACTION PROJECT
ENVIRONMENTAL POLICY INSTITUTE o FRIENDS OF THE EARTH
THE IZAAK WALTON LEAGUE o THE LEAGUE OF WOMEN VOTERS
NATIONAL WILDLIFE FEDERATION o SIERRA CLUB o TROUT UNLIMITED
UNITED STATES CONFERENCE OF MAYORS o U.S. PIRG
WATER AND WASTEWATER EQUIPMENT MANUFACTURERS ASSOCIATION

March 11, 1985

The Hon. Robert Roe
Chairman
Subcommittee on Water Resources
Committee on Public Works and Transportation
U.S House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Local government, environmental and private organizations have joined together in a new effort dedicated to an improved and reauthorized Clean Water Act this year. This letter reflects our major concerns. We urge you to give the following proposed recommendations your careful consideration.

1. CONSTRUCTION GRANTS

Increase the funding for the construction grants program above the minimum $2.4 billion annual program to ensure sustained progress in meeting the 1988 secondary treatment deadlines and other requirements of the Act.

The Administration's proposed four-year phaseout of the wastewater construction grants is unacceptable at this point in the program. These recommendations totally negate the historical commitment of federal funds to specific national water quality goals. Under the guise of deficit reduction (somewhat limited and questionable savings projected at $190 million overall during FY 1986-88), these recommendations also squander a one-time opportunity to secure substantial environmental gains at a critical stage in the program. In fact, there is ample justification for increased funding at this time given EPA's 1984 Needs Survey, the goals of the Act and its approching deadlines, and the number of major projects ready to receive federal funding commitments.

One of our specific concerns is the inability of some states to amass sufficient funding under the current allocation system to support major projects which, given their size and complexity, have not received

received adequate prior grant support. The 201 Program must in some way target funding to these areas to ensure that these major projects are completed in a timely manner and to secure the associated environmental benefits for the nation.

Another important concern under the existing 201 Program is funding for Combined Sewer Overflow projects with demonstrated water quality benefits. While Congress expected that grandfathering provisions and the governor's discretionary set-aside authority would deal with these important projects, to date this has not been the case. The Congress should review the progress made under the 1981 changes and consider whether the Act sufficiently addresses those projects which are cost efficient and essential to achieving water quality goals.

Finally, there are now several proposals pending to establish state revolving loan programs capitalized in part through federal grant assistance. Such loan programs must complement a properly funded grant program.

2. NPDES PERMIT TERM

Maintain the current five-year term for National Pollutant Discharge Elimination System (NPDES) permits.

The present five-year permit term protects water quality and ensures a period of predictability for industry and municipalities. A thorough examination of the discharge permit program at the federal and state levels indicates that the extension of the term to ten years would not adequately protect water quality. The House and Senate bills (H.R. 8 and S. 53) propose to have permits reopened and upgraded when new water quality criteria are adopted or revised. In at least 18 states, water quality problems are discovered and addressed at permit reissuance when changes can best be incorporated into the new permit. The extension of the permit term to ten years would lock in existing toxic pollution control requirements for a decade, further delaying the attainment of our national goal to attain fishable, swimmable waters.

The permit backlog is not caused by the current five-year permit term. The backlog can be attributed to EPA's delays in issuing the Best Available Technology (BAT) guidelines needed to establish the limits in the next round of permits, and to insufficient staff at both the federal and state levels to process permit renewals. Since the BAT guidelines are now being promulgated, delays due to inadequate guidance should be eliminated.

3. NON-POINT RUNOFF POLLUTION

Provide for a mandatory program of planning and implementation including grants to states at sufficient levels of annual funding and amend existing programs, as noted below, to strengthen non-point pollution abatement objectives.

The Clean Water Act can be strengthened considerably through the enactment of a program specifically designed to require states to develop and implement non-point programs. For some time, it has been widely recognized that the absence of such a program has compromised existing programs and objectives of the Act. At the outset, each state should be required to develop and implement a non-point program and adequate funding should be authorized to support this effort.

In addition to state and local non-point programs, there must be a program aimed at federal agencies and activities. Federal consistency and cross-compliance language should be added to the House and Senate bills to ensure agencies, such as the Departments of Transportation and Agriculture and the Soil Conservation Service, implement their programs in a manner consistent with controlling non-point source pollution. A citizen's suit provision which allows suits against the above agencies to ensure enforcement of consistency should be added.

We also recommend that existing programs be amended to supplement the state non-point program requirement. First, states and localities should be allowed to use set-aside funds under Title II for non-point pollution control programs that will eliminate the need for more costly improvements now funded under Title II. For example, increasing amounts of phosphorus and nitrogen from non-point sources can cause some communities to build advanced wastewater treatment systems. In this case, if the innovative and alternative technologies program allowed funding of a less costly non-point solution to this problem, it would avoid construction of a tertiary facility which is eligible for funding under the basic Title II program. The rural communities set-aside (subsection 205(h)) and the Governor's set-aside (subsection 201(g)(1)) could be reviewed for changes to address these cost-effective non-point pollution control alternatives.

4. ANTIBACKSLIDING

Establish an antibacksliding provision which, under most circumstances mandates that no permit may be renewed, reissued, or modified to contain effluent limits less stringent than the previous permit.

This issue proves to be most difficult to resolve in terms of proposing specific statutory language for the Clean Water Act. This group is committed to working with you to develop specific amendments to address backsliding issues. Backsliding may be appropriate when the original permit standards were written without the benefit of subsequent research and information upon which to base the standards. However, backsliding should not be allowed merely because new information suggests that additional assimilative capacity is available or because of changes in waste load allocations.

5. PRETREATMENT PROGRAM

In the 1984 Clean Water Act proposed legislation there were several proposals for changing the pretreatment program. We do not support legislative changes to the pretreatment program given EPA's recent efforts to aggressively implement the recommendations of the Pretreatment Implementation Review Task Force (PIRT) and dedicate adequate budget and staff to this effort.

We very much appreciate your consideration of these concerns and look forward to working with you for the timely reauthorization of the Clean Water Act.

Sincerely,

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CHRISTOPHER N. BROWN
Conservation Director
American Rivers
Conservation Council

Ron M Linton
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Executive Director
Association of Metropolitan
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U.S. PIRG

TESTIMONY

BY

EDWARD LLOYD

OF

THE NEW JERSEY PUBLIC INTEREST RESEARCH GROUP

BEFORE

THE WATER RESOURCES SUBCOMMITTEE

ON

REAUTHORIZATION OF THE CLEAN WATER ACT

APRIL 25, 1985

U.S. PUBLIC INTEREST RESEARCH GROUP ■ 215 PENNSYLVANIA AVE., S.E. ■ WASHINGTON, D.C. 20003 ■ (202) 546-9707

Good morning. My name is Edward Lloyd. I am the General Counsel for the New Jersey Public Interest Research Group (NJPIRG). I am testifying today on behalf of the United States Public Interest Research Group (U.S. PIRG). U.S. PIRG is a national nonprofit, nonpartisan consumer and environmental organization which serves as the national advocacy office for a number of state PIRGs. I am also testifying on behalf of the 37 New Jersey organizations participating in the New Jersey Clean Water Campaign. The list of these organizations is appended to my testimony.

As a member of the national coalition working to strengthen the Clean Water Act, U.S. PIRG strongly supports the retention of the five year National Pollutant Discharge Elimination System (NPDES) permit term, the inclusion of anti-backsliding provisions in the act, and the implementation of a strong non-point pollution program. These provisions are critically necessary prerequisites to the reauthorization of the Clean Water Act. Specifically, we support Congressman Oberstar's bill, H.R. 1509, which incorporates these provisions.

These, and indeed any provision in the Clean Water Act, can become totally meaningless without adequate enforcement. I would like to address the remainder of my remarks to the issue of enforcement of the Clean Water Act. Enforcement cuts across every provision of the act, and the success of any program depends upon the adequacy of its enforcement.

Tragically, EPA's enforcement record of permits under the Clean Water Act has been dismal, as is evidenced by GAO reports in 1978 and 1983 and NJPIRG's report of EPA enforcement in 1981.

The 1978 GAO report entitled More Effective Action By The Environmental Protection Agency Needed to Enforce Industrial Compliance With Water Pollution Control Discharge Permits (CED - 78-182 October 17, 1978; B166506) found a high degree of noncompliance by permittees with discharge limitations (55 percent failed to comply with one or more discharge limits in a 15 month period while 51 percent of these violators failed to comply in five or more months of the 15 month period). The GAO also found failure to submit discharge monitoring reports (DMRs), incidence of significant toxic violations, and EPA enforcement response neither timely nor strong. The GAO found that referrals to the Department of Justice for enforcement actions were infrequent and that barring violators from federal contracts, grants, or loans had only been used for four facilities.

The 1983 GAO report entitled Wastewater Dischargers Are Not Complying With EPA Pollution Control Permits (GAO/RCED - 84-53, December 2, 1983; B-200800) found the enforcement situation worse rather than better. The 1983 report concluded that noncompliance was widespread, frequent, and significant. Eighty-two percent of permittees had one or more violations in an 18-month period while 31 percent were in signifcant noncompliance (more than 50 percent over the permit limits for a four month period). The GAO also found that many DMR's were inadequate or not filed at all and that lab analysis of samples was inaccurate. It also found that noncompliance occurred for long periods of time both before and after enforcement actions were begun by EPA, and that formal enforcement actions were down 41 percent between 1980 and 1982.

NJPIRG's 1981 report entitled Enforcement Under the Federal Water Pollution Control Act by the U.S. Environmental Protection Agency Region II 1975-1980 found enforcement totally lacking. NJPIRG found that EPA virtually ignored 86 percent of the violations reported. When EPA did respond, the typical response was a warning letter issued one year on the average after the first violation had been reported, by which time on the average another four violations had occurred. NJPIRG also found that the response rate for toxics was worse than the response rate for other violations -- only a nine percent response rate for toxics. NJPIRG also found that the response rate for major violations as defined by EPA was no better than for other violations -- a response rate for major violations of only 13 percent.

Given this massive noncompliance with permit limitations and the nearly total lack of enforcement of these limitations by EPA, we recommend the following amendments to the Clean Water Act to reduce noncompliance and bolster enforcement:

I. Give EPA the authority to administratively assess penalties for violations of the act.

The authority for EPA to administratively assess penalties against violators in a quick, efficient, and effective manner may be the best and the simplest method to improve enforcement of the Clean Water Act. Along with the authority to assess such penalties, citizens must be given the right to call for a hearing to intervene and fully participate in EPA and state enforcement proceedings and to seek judicial review of enforcement proceedings with regard to the adequacy of penalties as well as the adequacy of other remedies. Inherent in these citizen rights is the right to comment upon proposed consent orders between the agency and a permittee. In order that these citizen rights are fully protected, no consent order should become final until an opportunity for notice and comment is given to the affected citizenry. Finally, neither the existence of a consent order nor the assessment of penalties by EPA should preclude a citizen suit based upon the inadequacy of the administrative remedy or penalty assesement or upon more recent violations of the permit.

II. Require regular publication of permit violations in well-circulated local newspapers.

This requirement is similar to a provision in the Safe Drinking Water Act. It would alert citizens to violations occurring at local facilities, and would therefore give incentives for those facilities to strive not to violate their permits.

III. Permit EPA to delegate its on-site inspection authority to private contractors to perform on-site inspections on behalf of EPA and under EPA's guidance and direction.

This would significantly expand EPA's enforcement authority by giving them the ability to conduct on-site inspections through contractors who have had difficulty obtaining access to sites in the past.

IV. Provide an award or bounty of up to 25 percent of the assessed penalty for citizens who bring enforcement actions against violators of the act.

This is similar to the bounty provision in the Rivers and Harbors Act of 1899. It would give citizens greater impetus to aid in the enforcement of the act than simply awarding them expert witness and attorneys fees.

V. Prohibit chronic Clean Water Act violators from bidding on federal timber, oil, coal, or gas leases.

This would provide further economic incentives for facilities to strive to reduce their violations of the Act.

U.S. PIRG believes that adoption of these enforcement mechanisms will go a long way toward significantly reducing the current widespread and frequent noncompliance with the Clean Water Act, and that they will markedly improve enforcement of the provisions of the act by both government and citizens. We urge you to seriously consider their adoption.

ORGANIZATIONS PARTICIPATING IN THE NEW JERSEY CLEAN WATER CAMPAIGN

American Littoral Society
Association of New Jersey Environmental Commissions
Clean Ocean Action
Coalition Against Toxics
Communication Workers of America
Concerned Citizens of Wayne
Del-AWARE
Eastern Surfing Association
Great Swamp Watershed Association
Highlands Watershed Association
Jersey Coast Angles Association
Lakewood Inhabitants Fighting Environmental Rape
League of Conservation Voters
League of Women Voters of New Jersey
Little Falls Citizens for Flood Control
Monmouth County Friends of Clearwater
National Audubon Society (New Jersey Chapters)
New Jersey Audubon Society
New Jersey Conservation Foundation
New Jersey Coalition for Alternatives to Pesticides
New Jersey Council of Dive Clubs
New Jersey Environmental Lobby
New Jersey Federation of Sportsmen
New Jersey Public Interest Research Group
New Jersey Water Resources Coalition
Ocean City Environmental Association
Ocean County Citizens for Clean Water
Passaic River Coalition
Princeton Environmental Action
Raritan Friends of Clearwater
Reinhabiting New Jersey
Rutgers Environmental Political Action
Sierra Club (New Jersey Chapter)
South Monmouth Board of Realtors
Sussex County Conservation District
Trout Unlimited (New Jersey Council)
United Boatmen's Association

League of Women Voters of the United States • 1730 M Street, N.W., Washington, D.C. 20036 • (202) 429-1965

TESTIMONY BEFORE THE HOUSE WATER RESOURCES SUBCOMMITTEE
RECOMMENDATIONS TO IMPROVE THE CLEAN WATER ACT
BY
JULIA A. HOLMES, BOARD OF DIRECTORS
LEAGUE OF WOMEN VOTERS OF THE UNITED STATES
APRIL 25, 1985

I am Julia A. Holmes, member of the Board of Directors of the League of Women Voters of the United States. I am testifying today on behalf of a quarter of a million League members and supporters from across the United States. The League has long been active on natural resources issues through the work of our 1,300 local Leagues.

Since the 1950s, Leagues have been concerned about the need to develop effective programs for water management, water planning and protection of water quality. Reflecting these concerns, many Leagues in the 1970s worked closely with designated agencies in developing the comprehensive areawide water quality plans required by Section 208 of the Clean Water Act.

As you know the focus of these plans was on identifying sources of nonpoint pollution and potential methods of control. But since the federal directive required planning only, not implementation, after years of work and the expenditure of federal funds, many of the 208 plans ended up on the shelf.

As a result of their involvement in the 208 process, Leagues have been particularly aware of the water quality problems caused by nonpoint pollution and disturbed by the lack of action to curb this growing pollution source. We think that the program outlined in H.R. 8 with strengthening provisions, could be a significant start in controlling nonpoint problems. We commend Rep. Jim Oberstar of Minnesota for leadership on this issue. We feel nonpoint source pollution is one of the most important issues facing this committee, and we will direct most of our remarks to this problem.

Before I begin discussion of our proposals to control nonpoint source pollution, I would like to touch breifly on two other issues.

First, the League of Women Voters strongly urges this subcommittee to retain the current 5-year length of National Pollutant Discharge Elimination System permits. Other organizations on this panel will testify at length on this issue, so I will not repeat the details of this problem. However, we do agree with the arguments that the provisions for reopening permits in H.R. 8 would still allow pollution to be locked in for the entire ten-year length of the permits. In addition, we are concerned that since EPA currently allows 5-year permits to last 7 or 8 years, they may allow 10-year permits to last 12 or 13 years. Only by EPA speedily producing Best Available Technology guidelines will the current permit backlog actually dissipate. And make no mistake about it, lengthening these permits will be a significant and fundamental weakening of the law. These permits were named "pollutant elimination" permits for good reason. They were meant to be changed, adapted and tightened as we moved towards the goal of fishable/swimmable waters. By lengthening these permits from 5 to 10 years, an incremental slowing in attaining this goal will occur. The current law should be retained.

Second, the League believes that the federal construction grants program should be reauthorized at least at its current levels. Water quality would be improved if the program were expanded through a revolving loan fund or additional grant money. While we believe the grants program was not designed to last forever, and some abuse has taken place under this program, it is an undeniable fact that unless more money is provided there will be a severe impact on gains already made under the Clean Water Act.

EPA's recent needs survey shows that as much as $108.9 billion will have to be spent on sewage treatment, with $34.4 billion of this total a potential federal investment. "Failure to meet these needs would result in severe water quality degradation," according to EPA. Even though this program should eventually be phased out completely or converted into a loan program, now is clearly not the time to make this step. The need is too urgent, the local resources are too few. We commend this subcommittee for addressing these funding needs in H.R. 8.

NONPOINT SOURCES

Nonpoint sources have long been recognized as a serious water quality problem. But because of the diffuse nature of the problem, the many different sources involved, the wide variance in problems from region to region, and the site-specific nature of many remedies, Congress has avoided establishing a program for nonpoint source control.

However in the past decade, through the 208 process and studies undertaken by a variety of sources, a body of knowledge has been developed about the nature, extent and potential solutions for nonpoint pollution that leads to one conclusion: We cannot afford to wait any longer to establish effective nonpoint control programs. To list only a few of the salient facts: EPA reports that six out of ten federal regions cite nonpoint sources as the principal remaining cause of water quality problems in their region. The Conservation Foundation estimates that at least $6 billion in offsite damages are caused annually by sediment runoff from soil erosion. Staff at Resources for the Future recently compared the relative amounts of selected pollutants in surface water contributed by point and nonpoint sources and found that 90 percent of total coliforms, total nitrogen (except nitrate) and iron came from nonpoint sources as well as 60-70 percent of total phosphorous, oil and zinc. In addition, concern is growing about groundwater pollution caused by nonpoint sources, particularly pesticides, and overall pesticide use is expected to increase in coming years.

In the absence of federal leadership a few forward-looking states have set up strong nonpoint programs. But federal leadership is needed to tackle this national problem in a meaningful, comprehensive way--to ensure that all states with serious nonpoint problems take action and to protect those states that have already developed programs from inheriting pollution problems from other states as pollution flows downstream.

We think that H.R. 8 does establish the basic framework for beginning to control nonpoint source pollution. In particular, we are glad to see that the bill

-- recognizes that states should have primary responsibility for program development.

-- gears federal funds to program implementation rather than planning.

-- targets efforts to those areas that cannot meet water quality standards due to nonpoint problems to ensure that our limited resources are used in areas that can realize the biggest payoff in terms of pollution recudtion.

-- allows EPA to give funding priority to those states that have established effective regulatory programs.

-- acknowledges the importance of federal consistency to ensure that federal activities do not at the same time promote and undercut good water quality practices.

-- provides for EPA to step in and identify problem areas if a state fails to do so.

-- requires EPA to report to Congress on further action needed by January 1, 1988.

LOCAL INVOLVEMENT/PUBLIC PARTICIPATION

H.R. 8 now provides that states shall make use of local agencies and organizations in developing and managing their nonpoint programs and requires some plan for public participation before submission of plans to EPA. We would like to emphasize the importance of local input in contributing to the success of these programs. Since appropriate best management practices to control nonpoint problems are often site-specific, we hope that states will make every effort to obtain substantial local input at the earliest stages of program development. Public understanding and support are fundamental to the success of all environmental programs, but the public role in designing this program from the bottom up is critical.

While the nonpoint pollution control program in H.R. 8 is a good first step, it suffers from two fundamental problems. First, while this program will encourage states that are already doing a good job in controlling nonpoint to do more, it provides few real carrots and sticks to get states that are currently doing nothing to act. These are the states where the most severe problems lie, and this subcommittee should consider further action. Second, even this first step may not occur because the program probably will not be funded fully, if at all, due to our current economic crisis.

However, this first problem may be partially solved by new proposals we will make in this testimony and the funding problem can be solved by resources that are at hand. As we stated in the opening of our testimony, we are in favor of retention of the current levels of Title II, construction grants funding for the current reauthorization period and the addition of a revolving loan fund. All money available under Title II, and in particular any money in a revolving loan fund should be made available for control of nonpoint source pollution where it will effectively improve water quality and is a cost efficient use of funds.

This should be done for a number of reasons. First, it would provide sure funding from a water quality related resource pool. It would also offer greater flexibility to ensure the best pollution control "bang for the buck" is achieved. Second, as six out of ten federal regions cite nonpoint sources as the principal remaining cause of water quality problems in their region, it is clear that cleaning up these sources may represent the best increment for reaching water quality goals. This will protect the billions of dollars of prior investment we have made in cleaning up point sources.

Third, the set-aside accounts of Title II offer a natural and excellent interim funding source for nonpoint source control. The governor's discretionary fund currently used for ineligible projects would have more flexibility. Since agriculture is a major source of nonpoint pollution, the rural communtites set-aside is a natural place to go for nonpoint control funds. The innovative and alternative technology set-aside also could supply a clean-up source for the 20 states currently returning I&A funds.

The revolving loan fund offers special advantages for the control of NPS pollution. We feel that by giving low-cost loans to control NPS pollution, incentives would be provided to clean-up pollution. NPS pollution is by its nature diffuse and we favor cost-sharing grants for demonstration projects or particularly troublesome areas. In addition, a loan approach strikes us as both cost efficient and correct as a general philosophy.

In the past, both the House and the Senate Appropriations Committees have been reluctant to fund some clean water programs. We commend this subcommittee for authorizing more funds than the Senate, but it is unclear whether these funds will ever be appropriated. It is absolutely crucial that this subcommittee find a means for funding this program, otherwise it simply will not work and the hard work which has gone into designing it will be for naught.

FEDERAL CONSISTENCY AND COORDINATION

Many federal agencies such as the U.S. Department of Agriculture, the Office of Surface Mining, Federal Highway Administration and the various federal land management agencies, conduct activities that can cause severe nonpoint pollution problems if improperly planned. It is unfair and inefficient to tell states that they must clean-up while the federal government does not have its own house in order. We are glad to see that H.R. 8 permits states (1) to develop a list of the federal development and federally assisted activities that can have nonpoint impacts and (2) to recommend how such proposed projects could be made consistent with state programs. Then, if a state finds inconsistencies federal agencies are required to accommodate state concerns. We think the federal consistency provisions give states important, fully warranted controls over federal activities that would undercut state water quality goals.

But beyond this, we believe that the federal government has an independent responsibility to ensure that its activities do not exacerbate already serious nonpoint problems -- whether or not a state control plan is in effect. The bill now requires that, if states fail to develop a program, EPA will step in to identify waters where nonpoint pollution is preventing attainment of water quality standards and designate the pollution sources causing the problem. In these cases, we think that EPA should also be required to develop a list of federal activities and assistance programs affecting nonpoint pollution, and prohibit any such activities that would lead to more severe water quality problems in those identified areas.

Other federal agencies also should have a mandatory duty to establish how their programs may be inconsistent with controlling nonpoint source pollution. The law should also mandate that not only do the states have the right to enforce consistency, but these agencies have a mandatory duty to lessen their contributions to NPS pollution. It is time the federal left hand let the federal and state right hands know what they are doing. It is time that we stop subsidizing the creation of nonpoint pollution, only to pay once more to clean it up.

CITIZEN SUITS

In the past citizen suits have been an effective tool in expediting development and enforcement of environmental programs. We urge the committee to amend section

505 of the Act to allow suits not only against EPA but also against any governmental unit for failure to carry out its mandatory requirements established by the Clean Water Act. Without this provision, while EPA will have the responsibility to get other agencies to clean-up their act, no real authority will exist to make this happen. Citizen suits will add a reasonable and workable avenue for public participation in this process.

CONCLUSION

The League believes that the changes we have asked for in this testimony are reasonable, and given the scope of the problem, quite minor. We are convinced that four years from now the League of Women Voters will be right back in this room talking about the need to solve NPS pollution problems. With the improvements we have asked for -- Title II funding, greater federal consistency and citizen suits -- we feel this program may give us a good start towards solving nonpoint pollution problems. 'However, without funding and without the additions we have asked for, we fear this program will accomplish little in moving us towards the goals of fishable/swimmable waters for all Americans.

The time is now for forcing the development of well-designed state implementation plans, with tough sanctions for those states that chose to pollute the waters of those who live downstream. The League has written an article outlining the elements of an effective nonpoint program which was published in the April issue of Environmental Forum. We ask that this article be added to the hearing record.

We believe the time is now to invest our funds in cleaning up this largest remaining water quality problem; so that our children neither have to suffer the further poisoning of their surface waters with heavy metals and pesticides, the further loss of their valuable topsoils, nor pay even larger costs for cleaning up these problems later.

In our testimony, we have suggested the bare minimum necessary to give the H.R. 8 NPS program a chance to work and to give this bill a chance for quick passage. We sincerely hope that you will take these concerns and suggestions to heart and improve this bill.

Congressional Action Needed Now to Protect Investments

by Merilyn B. Reeves,
League of Women Voters of the U.S.

Pollution from nonpoint sources is the major cause of continuing water quality problems in many parts of the country. Yet despite a 12-year national commitment to restoring and maintaining water quality, Congress has failed to establish a control program to reduce or eliminate this pollution.

Nonpoint pollution accounts for 75 percent of all sediment, 90 percent of all fecal and other coliform, 80 percent of all nitrogen, and 50 percent of all phosphorus entering our lakes, estuaries, and rivers. These pollutants endanger public health, destroy fish spawning areas, accelerate eutrophication of lakes and reservoirs, and prevent attainment of water quality goals in at least 37 states.

Nonpoint pollution comes from diverse places such as city streets, cropland, forests, highways, airports, and industrial sites. In urban and suburban areas, rain washes large quantities of cadmium, lead, salt, bacteria, toxics, and other pollutants into nearby waters. For example, an EPA study in Washington, D.C., found that runoff from city streets in the nation's capital contained concentrations of suspended solids 104 times higher than is found in the effluent from a secondary sewage treatment plant. Lead concentrations were 1,015 times higher.

Runoff in rural and forest areas sends heavy doses of fertilizers and pesticides along with tons of

Reeves *Continued on page 33*

Merilyn Reeves, of Amity, Ore., is a member of the Board of Directors of the League of Women Voters of the U.S., and she directs the League's natural resources activities.

Reeves

Continued from page 30

sediment into rivers, lakes, and waterways. The General Accounting Office reports that soil erosion caused by poor agricultural practices is 25 percent worse today than in 1934. In Illinois, about 181 million tons of soil wash from cropland each year. Much ends up in streams.

About two bushels of soil are washed away for each bushel of corn produced in Illinois. In Iowa, five tons of topsoil are lost for each ton of corn produced. The environmental damage caused by nonpoint pollution exceeds $3 billion per year, according to an estimate by The Conservation Foundation.

This problem is not new. Each additional study substantiates the inescapable fact that many bodies of water will remain dirty unless nonpoint sources of pollution are reduced and controlled.

The problem is complex, but no more so than most environmental pollution problems. Nonpoint controls will require expert attention and the establishment of a variety of site-specific Best Management Practices. Fortunately, cost effective, proven control methods exist; some have been in place for years.

Many states have enacted mandatory sediment and erosion control laws. Before land is disturbed for new construction, these laws require site-specific plans that identify appropriate control measures. [illegible] include anchoring straw or hay bales around the perimeter of a site and construction of sediment basins and storm drainage systems.

Federally-funded demonstration projects in urban areas provide evidence of the effectiveness of routine street cleaning, construction of storm water detention and infiltration systems, and upgrading of old, ineffective storm collection facilities.

For silviculture and mining, a vast array of control measures would, if implemented, reduce the destructive effects of massive soil shifts, landslides, and acid runoff.

For farm lands, proven, common-sense conservation measures can be implemented throughout a pollution-stressed watershed to improve water quality. Vegetative buffer strips, shelterbelts, contour plowing, and other soil tillage that minimize erosion are proven, cost-effective techniques which both improve water quality and prevent the loss of precious topsoil. A variety of Best Management Practices have been identified through the EPA/State 208 planning process to match the specific soil type, crop, and terrain of individual farms.

'It is time for Congress to mandate action'

We know there are significant nonpoint pollution problems throughout the country and that much can be done to reduce the volume of pollution that enters lakes, estuaries, and streams. It is time to match knowledge with action. A handful of states, fully aware of the extensive damage caused by nonpoint sources, have established effective control programs. But these states are the exception, not the rule. It is time for Congress to mandate action and for all states with severe nonpoint problems to begin implementing control programs. Nonpoint pollution is a national problem. It is an impediment to achieving national water quality goals. A nonpoint source pollution control program belongs in the Clean Water Act.

It is time to set up a federal program that will:

- Require all state and local governments to identify those areas where nonpoint source pollution is a major cause for failure to meet water quality standards;
- Require states and local governments to work closely with affected parties in identifying appropriate controls and require implementation of those controls (Clearly the most effective nonpoint programs will work from the bottom up—with local governments and involved parties selecting site-specific controls and remaining closely involved in every aspect of implementation.);
- Require EPA and the U.S. Department of Agriculture to provide extensive technical assistance and conduct public education and outreach programs in affected communities;
- Require that all activities undertaken by federal agencies or supported with federal funds be consistent with state and local nonpoint source control programs;
- Set firm deadlines for establishment of state and local programs, since no program can be effective without clearly specified goals and deadlines;
- Capitalize to the greatest extent possible on the expertise and experience of the Soil Conservation Service and local soil conservation districts in program implementation;
- Require cross compliance so that good soil conservation practices are a prerequisite for receiving federal subsidies (The federal government should stop giving mixed signals to farmers, encouraging conservation on the one hand and rewarding poor erosion control practices on the other through loans and price supports.);
- Provide a means to enforce controls through use of federal oversight responsibilities and citizen suits;
- Provide that money in any revolving loan fund established under the Water Act's construction grants program be made available also as loans for implementation of nonpoint source controls.

Good water quality is not an outdated fad or an expensive frill. Large sums of private and public monies have been invested in pollution control. Much progress has been made. Now is the time to protect that investment and continue the progress. Water quality goals can only be achieved by controlling all sources of pollution. Establishment of an effective nonpoint source control program is central to that goal. □

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STATEMENT OF MARK VAN PUTTEN,
NATIONAL WILDLIFE FEDERATION
ON THE
REAUTHORIZATION OF THE CLEAN WATER ACT
BEFORE THE
HOUSE OF REPRESENTATIVES WATER RESOURCES SUBCOMMITTEE

April 25, 1985

Mr. Chairman and members of the Committee, I am Mark Van Putten, an attorney on the staff of the National Wildlife Federation ("NWF") and Director of the Federation's Great Lakes Natural Resource Center located in Ann Arbor, Michigan. I appreciate the opportunity to testify before you on behalf of the Federation's 4.5 million members and supporters, including 52 affiliated state and territorial organizations. NWF has a long-standing interest in achieving cleaner water in America and has been following closely the reauthorization of the Clean Water Act.

The National Wildlife Federation has joined with a number of government, industry, citizen and environmental groups in formulating a consensus agenda for maintaining and improving the Clean Water Act. Together, we have identified five elements which we believe are essential for continuing the nation's progress towards achieving "fishable, swimmable" waters.

These five elements include maintaining and increasing the construction grants program for sewage treatment facilities, maintaining the present pretreatment program for toxic chemicals discharged by industry into sewers, and adopting a mandatory nonpoint source pollution program.

My testimony today will focus on two other essential elements: the critical role of the five-year wastewater discharge permit in achieving water quality goals, and the growing national need for an "anti-backsliding" policy.

NEED FOR BETTER WETLANDS PROTECTION

Protection of wetlands has been a high priority of the NWF and its affiliates because of the vital role these areas play in the survival of many species of fish, wildlife, and shellfish and because of their importance in improving water quality, performing waste treatment, reducing the effects of floods and storms, and recharging underground water supplies. Recent estimates by the U.S. Fish and Wildlife Service (FWS) and the U.S. Congress' Office of Technology Assessment (OTA) have underscored greatly the need for more effective protection for wetlands.

The FWS estimates that 56 percent of the original wetlands in the coterminous 48 states have been lost and that 11 million acres (550,000 acres per year) of vegetated wetlands were destroyed from the mid-1950's to the mid-1970's. The OTA estimates that in 1980-1981 the Section 404 permit program, as administered by the U.S. Army Corps of Engineers (Army), was only preserving an estimated 50,000 acres per year, approximately a six-fold decrease in previous estimates of the program's wetlands savings. The relatively low contribution of Section 404 in controlling the problem of wetlands destruction is due in part to the fact that the Army is not currently regulating agricultural activities involving draining and clearing. The FWS and OTA estimate that more than 80 percent of the destruction of this nation's vegetated freshwater wetlands results from such agricultural conversion.

Extensive changes in the administration of the Section 404 program by Army since 1981 have undermined the limited protection the program had been managing to provide for wetlands after 1977. A number of these administrative changes in the Section 404 program were modified by the settlement of NWF's lawsuit against Army (NWF et al. v. Marsh) in 1984. However, four years of so-called regulatory reform have left us with many other harmful changes which remain uncorrected. For example, Army has expanded use of nationwide general permits and created state program general permits, both of which amount to exemptions from individual Section 404 permit requirements and protections. Army revised its Memoranda of Agreement with the Fish and Wildlife Service, EPA, and the National Marine Fisheries Service to permit the Assistant Secretary of the Army for Civil Works to veto requests by those agencies for further review of natural resource impacts. Army has repeatedly challenged state denials of Section 401 water quality certification for nationwide general permits which the states found to have unacceptable environmental consequences. Additional regulatory changes that would weaken wetlands protection under Section 404, first proposed on May 12, 1983, are expected to become final later this year. Moreover, NWF has found and continues to find that Army is violating the letter and spirit of its 1984 settlement agreement with NWF.

Others have reached the same conclusion regarding Army's administration of the Section 404 program. The FWS concluded in two reports, one in 1983 for the Lower Mississippi River Valley and one in 1984 for northern New Jersey, that there has been a nearly total failure of the Section 404 program to provide protection for valuable wetland areas. The repeated refusal of Army to conduct further review of the fish and wildlife impacts on wetlands affected by the issuance of Section 404 permits led former Assistant Interior Secretary G. Ray Arnett to conclude that, "Army's regulatory program is so flawed, it is no longer a useable tool to adequately protect wetlands." One overseer of the 404 permit program, the House Government Operations Subcommittee on Intergovernmental Relations, recommended in 1984 that Congress consider transferring primary responsibility for the Section 404 program from Army to EPA.

For the above reasons, the 52 state and territorial delegates to NWF's Annual Meeting voted unanimously a month ago to adopt a resolution (copy attached) calling on Congress to make the following long-overdue, fundamental changes in the Section 404 program -- changes that are critical to more effective wetlands protection:

1) Provide authority and sufficient resources to shift responsibility for the Section 404 permit program from the Army to a federal agency with greater interest in wetlands protection and expertise in evaluating impacts to water quality, fisheries, and wildlife; and

2) Broaden the activities regulated under Section 404 to control channelization, excavation, draining, clearing, flooding, and dredging of wetlands and other waters of the United States.

Mr. Chairman, if we fail to take these decisive actions now more than 2.5 million acres of wetlands will be destroyed -- an area equal to half the state of New Jersey -- before Congress again considers the Clean Water Act. Therefore, we urge you to include provisions in H.R. 8 to effect these needed changes, and we would welcome the opportunity to work with the Committee in doing so.

NPDES PERMIT TERM

The primary means under the Clean Water Act for controlling the discharge of pollutants into the waters of the United States is the National Pollutant Discharge Elimination System (NPDES) permit program. The Act requires that all wastewater dischargers obtain a permit from EPA or an EPA-approved state water pollution control agency stipulating the types and volumes of substances which can be discharged legally. Under current law, these permits have a maximum term of five years, and a discharger must apply for a new permit prior to the expiration of an old permit.

The statutory limitation of the permit term to a maximum of five years plays a critical role in improving water quality. Increasingly stringent effluent limitations are incorporated into each successive permit to move the nation towards the Clean Water Act's goals of "fishable, swimmable waters" and the elimination of pollutant discharges.

The five-permit provides a regular opportunity for screening the quality of wastewater. It is a particularly important device for assessing and controlling toxic pollutant discharges since normally industries are only required to monitor and control those pollutants specifically limited in their permits. However, when applying for a new permit, industrial dischargers are required to analyze their wastewater for the priority toxic pollutants most likely to be discharged by a facility of that type. In the course of this analysis, they may discover for the first time that certain toxic pollutants are present in the wastewater.

For example, while screening its effluent at the time of permit reissuance, the 3M Company in Cottage Grove, Minnesota, recently discovered it was discharging high levels of a toxic metal, cobalt. No one knows how long or at what levels cobalt was being discharged from 3M's plant prior to this discovery. Had 3M been issued a ten-year permit, its cobalt discharges could easily have gone unnoticed for an additional five years.

The snapshot of wastewater quality provided by the toxic pollutant screening at the time of permit reissuance is a critical source of scarce data. Presently, these data on toxic pollutants are gathered at least once every five years. If the maximum permit term were to be doubled as proposed by H.R. 8 sec. 27(a)(1), these data would be gathered only once a decade.

Other changes in water quality conditions or in our knowledge about the toxicity of various pollutants and how they behave in aquatic ecosystems warrant revisiting wastewater discharge permits on a frequent basis. We believe that reconsidering the adequacy of toxic pollutant limitations once a decade is insufficient in light of the dynamic state of our knowledge about toxic chemicals. We must be assured that permits will be frequently revised to take account of these changes in water quality, the nature of wastewater discharges, and our knowledge.

H.R. 8 Water Quality Reopener Will Not Work

H.R. 8 section 27(a)(2) seeks to ensure that effluent limitations for toxic pollutants are updated during the proposed ten-year NPDES permit term to incorporate revised health-based effluent standards promulgated by EPA pursuant to sec. 307(a) or to reflect revised water quality standards adopted by EPA or the states pursuant to sec. 303. Since EPA has only rarely promulgated effluent standards under sec. 307(a), the most important aspect of this mandatory reopener of wastewater discharge permits is the reopener required when water quality standards are revised. Unfortunately, based on our survey of all of the approved NPDES states, we have determined that this mandatory reopener as contemplated by H.R. 8 will not work in many states.

NWF found in its survey that in at least eighteen states (see the attached Table I) water quality standards for specific lakes and rivers are normally revised at the time of permit renewal. These eighteen states use the priority toxic pollutant screening data required in the permit renewal application to identify the toxic pollutants of concern in the particular wastewater discharge. Then, these states adopt or revise water quality standards for the receiving waters based on the need to control the specific toxic pollutants in the particular discharge. Since the timetable for water quality standards revision depends upon the timetable for permit reissuance, revisions to standards cannot trigger the mandatory reopening of the permit envisioned by H.R. 8. In these eighteen states, allowing ten-year permit terms will freeze pollution cleanup for a decade until the permits expire.

There are ten other states where ten-year permits will also remain unchanged for the life of the permit. These ten states have no plan or program to adopt in the future numerical water quality criteria for specific toxic pollutants discharged into specific lakes and rivers. Rather, these states rely upon narrative toxic pollutant standards which require that their waters be "free from toxic pollutants in toxic amounts." Unfortunately, they have no program for enforcing these narrative requirements by translating them into water quality-based effluent limitations on specific dischargers of toxic pollutants.

To summarize, NWF found that there are twenty-eight states where the mandatory, water quality standards-based reopener of H.R. 8 simply will not work. In these states, ten-year permits will freeze toxic pollutant controls for a decade. Therefore, we cannot rely upon this permit reopener requirement as adequate assurance that pollutant controls will be updated frequently enough. Instead, we urge you to retain the current five-year maximum term to assure regular, certain updating of these permits and to adopt the mandatory permit reopener to revise toxic pollutant limitations even more often where the state water quality standards revision process allows this to occur.

Existing Water Quality-based Reopeners Are Not Often Used

Many states already have provisions in their regulations for water quality-based permit reopeners, but they are rarely used. For example, the pertinent Rhode Island regulation reads:

> "The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance or other provisions which may be authorized under the Clean Water Act or state law. In accordance with Rules 15 and 25 of the Rhode Island Permit Discharge Elimination System regulations, if any effluent standard or prohibition or water quality standard is promulgated under the Clean Water Act or under state law which is more stringent than any limitation on pollutants in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard."

In five states surveyed by NWF which have reopener provisions -- Rhode Island, Maine, Vermont, New Jersey, and Minnesota -- water pollution control agency personnel could not recall successfully reopening and upgrading toxic pollutant limits in a discharge permit. To do so, the state officials must prove and defend the rationale for revising the effluent limitations. Invariably, industry challenges the changes and a time-consuming, costly contest results. Instead, the prevailing practice is to wait until a permit expires to incorporate needed revisions into the new, replacement permit.

The Five-year Permit Term Is Not The Cause of Permit Backlogs

Industry groups and EPA have argued that the ten-year permit term is needed to eliminate the backlog of expired permits awaiting reissuance. However, the General Accounting Office study, "Wastewater Dischargers Are Not Complying With EPA

Permits," identified the following reasons for the backlog of expired permits:

1. lack of EPA's Best Available Technology (BAT) guidelines on which to base effluent limitations for industrial permits;
2. difficulties in establishing effluent limitations for industrial permits based on "best professional judgment" (BPJ) in the absence of the BAT guidelines;
3. a shortage of resources needed to re-write permits;
4. permits not being re-written pending the development of general permits for certain industrial categories;
5. low priority assigned to re-writing permits for minor dischargers; and
6. time-consuming negotiations with dischargers about effluent limitations.

The states surveyed by NWF most often cited the first three reasons for permit backlogs: lack of BAT guidelines, difficulty establishing BPJ limits, and a shortage of resources.

EPA's promulgation of final BAT effluent limitations guidelines has decreased the time required to prepare discharge permits from years to months. Approximately 40% of the expired industrial permits are now covered by BAT guidelines. As of December 1984, EPA had issued BAT guidelines for twenty-four of twenty-nine industrial categories, and EPA projects issuing the guidelines for the remaining five categories by March 1986. As a result, the five-year permits which were set aside by permit writers awaiting BAT guidelines and which became *de facto* seven-

and eight-year permits can now be reissued and the backlog should rapidly disappear.

Permit Backlogs Are Shrinking

EPA and the states have made a strong commitment to reissuing expired discharge permits. That effort is showing results. For example,

- Six states currently have no backlog of expired, major industrial permits (Kansas, Hawaii, Nebraska, Georgia, Wyoming, Nevada).
- Fourteen states have less than a 20% backlog of expired, major industrial permits.
- Twenty states have less that a 20% backlog of expired, major municipal permits.
- EPA Regions II, III, IV, and IX expect to eliminate their backlog of expired, major industrial permits by October 1985.

The states represented on the following table have among the highest backlogs in expired, major permits in the nation. The second and third columns indicate the percentage of their present expired and expiring FY85 permits they intend to reissue by October 1985. As you can see, all of them have committed to substantially eliminate their backlog by fiscal year 1986.

State	Major Industrial FY85 Commitment %age of Backlog	Major Municipal Fy85 Commitment %age of Backlog
PA	92%	87%
NY	98%	100%
NJ	50%	52%
OH	39%	58%
MI	57%	42%
CT	31%	92%
WA	54%	39%
IL	100%	98%
IN	86%	47%
VA	40%	33%

New Jersey provides a good example of the shrinking backlog. The New Jersey legislature recently appropriated funds to hire seven new permit writers. Issuance of BAT guidelines and increased resources has resulted in the reissuance of 45 major permits in New Jersey and the public notice of another 40 major permits since this fiscal year began. In contrast, in fiscal year 1984 New Jersey issued only 25 major permits. By October 1, 1985, 60% of New Jersey's major permits will be reissued and all major permits will be in draft, public notice form.

Finally, EPA's own internal operating guidance report projects the substantial elimination of the backlog in expired, major municipal and industrial permits. The Office of Water in its "FY86-87 Operating Guidance and Strategic Planning and Management System Report" issued on February 28, 1985 said:

> By the beginning of FY86, EPA and most NPDES delegated states will have substantially eliminated the backlog of major municipal and industrial permits and will concentrate on reissuing high quality permits as they expire. The general goal is to maintain a less than 10% backlog of major expired permits.

Thus, the ten-year permits proposal appears to us to be a solution in search of a problem; one which will result in freezing toxic pollutant controls for a decade. Therefore, we urge this Committee to delete sec. 27(a)(1) from H.R. 8 and to retain the current maximum permit term of five years.

ANTI-BACKSLIDING AND CLEAN WATER: PRESERVING WATER QUALITY GAINS

Next, I would like to discuss the importance of enacting an "anti-backsliding" policy to preserve the water quality gains we've made over the past fifteen years. Simply put, the prohibition against backsliding means that each successive wastewater discharge permit must be at least as stringent as the preceding permit. Its purpose is to implement the Clean Water Act's fundamental goal of continued progress towards the elimination of pollutant discharges, and it means that we will not continually re-argue over how much pollution of a particular lake or river is "acceptable."

In considering the anti-backsliding policy, we must distinguish between two different types of effluent limitations which are commonly included in expiring NPDES permits. First, permits may contain effluent limitations which were based on the permit writer's assessment of available treatment technology -- often referred to as "best professional judgment" ("BPJ") or "best engineering judgment" ("BEJ") effluent limitations. See Clean Water Act sec. 402(a)(1). Alternatively, if more restrictive limitations were necessary to meet water quality standards, the permit will contain "water quality-based" effluent limitations. See Clean Water Act sec. 301(b)(1)(C).

EPA's current anti-backsliding policy, 40 C.F.R. sec. 122.44(l), prohibits the reissuance, revision, or modification of an NPDES permit with limitations, conditions, or standards less stringent that those contained in the previous permit. Exceptions to the anti-backsliding policy are allowed where the circumstances upon which the previous permit were based have materially and substantially changed since the issuance of the original permit.

In the case of BPJ or BEJ permit limits, EPA interprets its anti-backsliding policy to mean that reissued permits must contain effluent limitations at least as restrictive as the BPJ or BEJ limitations, even if the subsequently issued, nationally uniform effluent limitations guidelines for that industrial category turn out to be less stringent. This assumes that the polluter has been able to comply with the BPJ or BEJ limitations in the existing permit. If, on the other hand, the polluter faithfully installed, maintained and operated the technology considered by the permit writer in developing the original BPJ or BEJ limitations, but was unable nonetheless to meet the permit limits, then EPA allows backsliding. However, the reissued permit must limit the polluter to the level of pollutant removal actually achieved or to the subsequently-promulgated effluent limitation guideline for that industrial category, whichever is more restrictive. 40 C.F.R. 122.62(a)(17).

Unfortunately, EPA has recently wavered in its commitment to this policy as it applies to the other type of effluent limitations, water quality-based limitations. EPA recently so broadened its interpretation of the "new information" exception to the policy (as it is applied to permit limitations which were based on water quality standards) as to threaten to swallow up the rule. In the preamble to the September 26, 1984 revisions to the NPDES regulations, EPA stated

> EPA would like to clarify one final point on the new information exception to the anti-backsliding policy in the existing regulations. For purposes of implementing the anti-backsliding provisions in section 122.44(1) for a reissued permit, where limitations in the expiring permit were based on water quality standards, 'information' under section 122.62(a)(2) may include alternative grounds (including necessary methodology; mathematical parameters, and other assumptions) for translating water quality standards into water quality-based limitations.

49 Fed. Reg. at 38022.

To translate, this means that development of any new way of calculating permit effluent limits based on water quality standards may justify increased pollutant discharges. This will encourage polluters to divert resources away from designing and installing treatment facilities and into developing new models of how pollutants behave in rivers and streams, or new methods for calculating wasteload allocations, or new proposals to base permits on seasonal considerations in order to obtain a reissued permit with less restrictive effluent limits.

This new interpretation of the "new information" exception to EPA's anti-backsliding policy means that hard-won gains in improved water quality can be given away to existing dischargers so they can turn off their in-place pollution control equipment to save the costs of operating and maintaining it. It means not preserving a margin of safety between minimum water quality standards and actual water quality. It means not reserving room for economic growth in allocating all the assimilative capacity between existing dischargers. In sum, if Congress fails to enact an anti-backsliding policy it will, in effect, be abandoning the "zero discharge" goal of the Act and recognizing dilution as an acceptable pollution control solution.

Pressures for Backsliding Are Increasing

Our concerns in this regard are not theoretical. As the attached "Exhibit B" demonstrates, EPA is actively promoting backsliding under the guise of "innovative permitting techniques." Also, with the abandonment of EPA's firm anti-backsliding policy, several states are facing strong pressure to allow increased pollutant discharges. As one example, consider recent developments in Wisconsin.

Last month the Wisconsin Natural Resources Board adopted new wasteload allocation regulations (Order No. WQ-1-85, copy attached as "Exhibit C") which will allow existing dischargers to increase their pollutant discharges to pollute Wisconsin's rivers back down to the absolute minimum water quality standards whenever water quality improves beyond that minimum. This regulatory change was promoted by the pulp and paper industry, and the Wisconsin Department of Natural Resources has already proposed to modify the permits of four mills located on the Fox River to allow them to discharge more pollutants to use up the water quality gains which resulted from the closure of another mill (copies of the public notices of the proposed modifications are attached as "Exhibit D"). These increased discharges are proposed despite the fact that the affected mills have been able to comply with the effluent limitations in the existing permits. Yesterday, the Wisconsin Board considered another regulatory change (Order No. WQ-1-85a, copy attached as "Exhibit E") which will allow polluters to buy and sell the assimilative capacity of Wisconsin's rivers.

Without a strong national anti-backsliding policy, Wisconsin officials are subject to intense pressures to allow increased pollutant discharges. As the correspondence between Michigan officials, U.S. EPA, and the Allied Paper Company attached as "Exhibit F" demonstrates, other states are feeling similar pressures and are looking to EPA for uniform, national guidance. EPA's promoting of backsliding under the guise of "innovative permitting techniques" suggests its unwillingness to squarely confront this threat to preserving water quality gains and that Congress must act.

What's Wrong With Backsliding?

In our view, there are four things wrong with allowing backsliding from existing permit effluent limitations.

1) First, it undermines the fundamental goals of the Clean Water Act. In passing the Act in 1972, Congress declared it

unlawful for any person to discharge any pollutant into the waters of the United States. Significantly, Congress did not prohibit pollution, i.e., a demonstrable environmental phenomenon. Aware of decades of frustration in attempts to determine "acceptable" levels of pollution, Congress instead prohibited any discharges of pollutants regardless of whether an immediate adverse effect could be demonstrated. To that same end, Congress also articulated the nation's goal of "zero discharge" of pollutants.

These were bold and inspiring goals that Congress set for the nation. So bold that some would now ridicule Congress' vision. Nevertheless, even if we haven't been able fully to implement that vision yet, these goals still have vital meaning. They mean that we don't look back. They mean that polluters that have made the capital investment in pollution control facilities must continue to operate those facilities, even if we cannot prove a direct environmental benefit for every increment of treatment. They mean that the only thing left to argue about in reissuing expired discharge permits is whether additional treatment is needed, mot whether existing treatment will be continued. Only in this way can we make continued, further progress towards achieving the goals of the Act.

2) Allowing new models of assimilative capacity, and new mathematical methods of calculating water quality-based permit limits to justify backsliding is also wrong because it narrows unacceptably the margin of safety in protecting human health and the environment against harm. By improving water quality beyond

that presently thought minimally necessary to protect aquatic organisms, widllife, and human uses we insure ourselves against the consequences of error. Those polluters like Allied Paper Co. and the Wisconsin pulp and paper mills who demand their "share" of water quality improvements for more pollution would have us shave that line as thin as possible.

Congress' adoption of the 1972 Act marked the culmination of its frustration with the process of calculating how much pollution was acceptable. Congress said then that dilution in our lakes and rivers was not an acceptable solution to pollution. We still believe this to be so. We don't want permit writers to return to the days of unending calculations of acceptable pollutant loadings. Where polluters have been able to meet the discharge limits in their old permits, at least then we ought to hold them to that level of treatment. If, as a result, water quality improves beyond that minimally required to meet standards, then we have a margin of safety to protect us against our errors of ignorance.

This margin of safety in controlling conventional pollutants such as total suspended solids and oxygen-demanding materials is particularly important in light of the failure adequately to control toxic pollutants. In many cases, allowing backsliding from effluent limitations for conventional pollutants like suspended solids or biological oxygen demand, without specifically controlling all the toxic pollutants which bind to those solids, will result in increased mass loadings of toxic pollutants to our lakes and rivers. For example, EPA's development document for PCB limitations for the deink subcategory of the pulp and paper industry shows a direct relationship between discharge levels of total suspended solids and levels of the most dangerous form of PCB, PCB-1242. For these dischargers, controlling suspended solids is the means for controlling PCB discharges. Therefore, backsliding from conventional pollutant effluent limitations should never be allowed without a demonstration by the discharger that it will not also result in increased discharges of persistent, bioaccumulative toxic pollutants.

3) Re-fighting old battles over past discharge limits in deciding whether to allow backsliding requires a significant expenditure of scarce resources by industries and municipalities on the one hand and by permitting agencies on the other with no environmental benefits. For example, if Allied Paper claims the existence of "unused" assimilative capacity in the Kalamazoo River, then the Michigan permit writers must review and evaluate that demonstration. They might even feel the need to do a new model of the river to make sure the assimilative capacity really existed.

You have undoubtedly heard complaints about the backlog of expired permits, yet the weakening of EPA's anti-backsliding policy requires that allegedly overburdened permit writers defend their old permits, in addition to writing new ones. We believe that permit writers should focus on developing additional controls as needed to meet water quality standards. We don't have enough resources to re-argue and re-analyze old permits.

4) Finally, if we allow backsliding by existing polluters and give them access to the assimilative capacity of our lakes and rivers, then there will be no room for new dischargers. In order to allow for economic growth, there must be some available assimilative capacity. Yet, the Wisconsin regulations, for example, do not provide for any reserve capacity to allow for new discharges to the most industrialized rivers like the Fox River. Instead, existing polluters seek to use up reserves as they occur so they can turn off pollution control devices now in place.

As the documents attached as "Exhibit B" demonstrate, the Wisconsin and Michigan examples of increased pressures for backsliding are the harbinger of a national trend. EPA is considering a host of "innovative permitting methods." From our point of view, they all mean one thing: more discharges of more pollutants into our lakes and rivers. Whether or not certain specific "innovations" which amount to a retreat from the goals of the Clean Water Act should be allowed ought to be a question of national policy. Under EPA's new exception to the anti-backsliding policy, development and use of these "innovations" is left up to case-by-case determinations.

Therefore, we urge this Committee to add an anti-backsliding policy to H.R. 8, and as a general model for the preferred approach, we recommend sec. 26 of H.R. 1509 introduced by Rep. Oberstar. We would welcome the opportunity to work with the Committee to refine Rep. Oberstar's proposal to specifically address the problems I've discussed today.

CONCLUSION

Mr. Chairman and members of the Committee, the National Wildlife Federation urges you to make critically needed improvements in H.R. 8 in order to restore and maintain water quality and to protect the nation's wetlands.

The control of toxic pollutants in industrial and municipal wastewater discharges is inextricably linked to the ratchetting-down of toxic pollutant limits in successive five-year permits. Therefore, we urge you to delete the ten-year permit provision in subsection 27(a)(1) of H.R. 8.

To recoup the enormous investment made by taxpayers in sewage treatment systems and by industry in pollution control equipment, we urge you to add an anti-backsliding policy to H.R. 8 similar to that proposed by Rep. Oberstar in section 26 of H.R. 1509.

Finally, we ask that you maintain sewage treatment construction grants and assure funding for a mandatory nonpoint source pollution program.

Thank you for your continued leadership in protecting America's environment and for this opportunity to present our views.

NATIONAL WILDLIFE FEDERATION
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Table I: Survey of States Adopting or Revising Water Quality Criteria Independent of Permit Reissuance

State	Adopt/Revise Criteria Independent of Permit Reissuance
Alabama	yes
Alaska	yes
Arkansas	?
Arizona	?
California	yes
Colorado	yes
Connecticut	no
Delaware	?
Florida	no
Georgia	?
Guam	yes
Hawaii	?
Idaho	yes
Illinois	yes
Indiana	no
Iowa	yes
Kansas	yes
Kentucky	no
Louisiana	no
Maine	no
Maryland	yes
Massachusetts	yes
Michigan	no
Minnesota	no
Mississippi	no
Missouri	yes
Montana	yes
Nebraska	yes
Nevada	yes

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Table I, continued

New Hampshire	no
New Jersey	yes
New Mexico	?
New York	no
North Carolina	yes
North Dakota	yes
Ohio	no
Oklahoma	?
Oregon	some
Pennsylvania	no
Rhode Island	no
South Carolina	yes
South Dakota	yes
Tennessee	yes
Texas	yes
Utah	yes
Vermont	yes
Virginia	no
Virgin Islands	?
Washington	yes
West Virginia	yes
Wisconsin	no
Wyoming	yes

Summary: 40%, 18 of 45, states adopt or revise water quality criteria at permit reissuance.

? Uncertainty due to conflicting or insufficient information.

Prepared: December 1984.

Resolution No. 5

ENACT MAJOR CHANGES IN SECTION 404 OF THE CLEAN WATER ACT TO PROVIDE EFFECTIVE PROTECTION FOR WETLANDS

WHEREAS, the survival of numerous species of wildlife, fish, and shellfish depends on healthy, productive wetland ecosystems; and

WHEREAS, wetlands improve water quality by filtering surface runoff before it reaches other water bodies, perform millions of dollars' worth of waste treatment, reduce effects of floods and storms, and recharge groundwater in aquifers providing public water supplies; and

WHEREAS, approximately 56 percent of our original wetlands in the 48 coterminous states have been destroyed; and

WHEREAS, the Section 404 permit program mandated by the Clean Water Act of 1972 is the principal Federal regulatory program that protects wetlands and plays an essential role in meeting the Act's goals to restore and maintain this nation's waters; and

WHEREAS, the Section 404 permit program, as administered by the U.S. Army Corps of Engineers in 1980-1981, was only saving an estimated 50,000 acres per year; and

WHEREAS, vegetated wetlands are currently being destroyed at the rate of 300,000 acres per year; and

WHEREAS, more than 80 percent of the destruction of this nation's vegetated freshwater wetlands results from agricultural development involving drainage, which is not currently being regulated under Section 404; and .

WHEREAS, notwithstanding the settlement in NWF et al. v. Marsh, since 1981 the Department of the Army has implemented numerous regulatory changes that have undermined greatly the wetland protection provided by the Section 404 permit program, including expanded use of nationwide general permits, creation of state program general permits, veto of requests by other Federal agencies for additional permit review, and challenges to state denials of water quality certification for environmentally destructive nationwide general permits; and

WHEREAS, additional regulatory changes that would weaken wetlands protection under Section 404, first proposed on May 12, 1983, are expected to be completed in 1985; and

WHEREAS, the U.S. Fish and Wildlife Service has issued two reports that indicate a nearly total failure of the Section 404 program to provide protection for bottomland hardwood wetlands in the lower Mississippi River Valley and wetlands in northern New Jersey;

NOW, THEREFORE, BE IT RESOLVED that the National Wildlife Federation, in annual meeting assembled March 14-17, 1985, in Arlington, Virginia, strongly urges restructuring the Section 404 program to:

1. Expand the activities regulated under the Section 404 permitting program beyond the discharge of dredged or fill material to include channelization, excavation, drainage, clearing, flooding, and dredging of wetlands and other waters of the United States;

2. Shift responsibility for the Section 404 permitting program from the Department of the Army and Corps of Engineers to the U.S. Department of the Interior, Fish and Wildlife Service, and/or EPA or a Federal agency with greater concern in wetlands protection and expertise in evaluating impacts to water quality, fisheries and wildlife;

3. Provide for meaningful review and veto of permits by other Federal agencies with responsibilities for water quality, fisheries, or wildlife;

4. Allow the Secretary of the Army to retain authority to veto permits proposed for issuance by another Federal agency in traditionally navigable waters on the basis of navigability concerns; and

5. Provide authority and funding for delegation of the Section 404 permitting program to the states with effective Federal oversight to assure environmental protection and public participation.

DRAFT REPORT

January 7, 1985

STATE EXPERIENCE WITH WATER INNOVATIONS
AND
POTENTIAL FOR INCREASED USE

Prepared for: Environmental Protection Agency
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January 7, 1984

Dr. Nancy Beach
EPA, Room 401 West Tower
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Washington, DC 20460

Dear Nancy:

Enclosed are five copies of the draft report on the state survey, one extra day late. I don't see any big surprises in the report, but it seems to strongly confirm most of our expectations. In most cases, it appears to me that lack of information -- rather than lack of resources or barriers in regulations and procedures -- is what limits the use of the innovations. In any case, here is the product for your review. Please let me know what you think it needs.

Best wishes,

Jim

James F. Hudson
Vice President

JFH/hs

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[APPENDICES will be included in final version]

Appendix A: Interview Guide

Appendix B: List of Respondents

Chapter 1

INTRODUCTION

This report is part of the ongoing Water Innovations Project, and is concerned with the implementation of innovative wastewater permits. The overall goal was to identify barriers which may limit *future* implementation of the innovations; to do so, we also investigated the *current* use of the innovations.

The innovations considered were:

- Seasonal permits
- Variable permits
- Seasonal standards
- Site specific standards
- Trading, both point-point and point-nonpoint

Further information on these innovations is contained in Reference [1].

Data collection included telephone interviews with permitting staff at the EPA regions, with extensive followup calls for specific information to the state officials involved in permitting in the delegated states.

OMB clearance [illegible]

This draft was prepared with complete information on 47 states, and partial data on two others. We expect to complete all 50 states by January 12.

The report has two parts. Chapters 2-6 describe -- for each innovation -- the current use of each of the innovations, barriers to increased use, and comments on their likely acceptance by the states. Chapter 7 then presents overall comments on the various innovations and their likely acceptance.

Certain innovations are standard practice in numerous states, and are considered to be a regular part of the permitting process there. Others have only been used in a few situations nationwide. Such innovations may find little support in the states, or may require that the permittees propose the innovation and do the necessary analysis. Thus, one of our concerns is with *what* is currently happening in the states. Once we understand the current situation, we can then address *why* use is widespread or limited, and the available *options* for increasing appropriate use of the innovations.

The level of information about the barriers to implementing the various options depends closely on the use of those options. Obviously, if an option is used extensively, we have information about the resources required, and we also have a presumption that the barriers to use are low. Similarly, if an option is not used, then there are barriers (which may include lack of information, or "newness") limiting its use. The revealed levels of use are extremely important in assessing potential, but so are the comments about each option by the state and regional staff. This report considers both, but concentrates on the comments.

Each of the alternatives shows a its own potential for future use, along with its own barriers to further implementation. Thus, the options for increasing their use vary among the alternatives. The general state comments, though, were remarkably consistent: they are opposed to EPA (and particularly headquarters) _requirements_, but are generally interested in technical assistance and useful, non-mandatory guidance. They are also very interested in opportunities to discuss innovations with other states which have used them.

Chapter 2

SEASONAL PERMITS

2.1 Current Use

Seasonal permits can barely be considered an "innovation" at this point, since they are frequently used by most states. However, the term includes many different types of problems and permitting processes, related to what may change from season to season. Flows and temperatures shift, and these may affect the degradation processes in the stream, the effects of nutrients, and even the wastewater treatment technology performance. The typical types of seasonal permits are:

Technology: Some wastewater technologies, primarily used by municipal dischargers (such as trickling filters) are less efficient in cold weather. Some states recognize this, and write permits so that the dischargers can meet their requirements in the winter season. Essentially, such permits may prevent "violations" without making any change in receiving water quality.

Ammonia toxicity: Since the reactions depend on the temperature and pH of the receiving water, which vary in broad seasonal patterns, seasonal permits provide different discharge limits in winter and summer. This may allow AWT plants to turn off nutrient removal processes.

Flow: In states such as Oregon, with wet and dry seasons, discharge limits may be set differently depending on the expected flow in the receiving water.

Irrigation season: Some systems may be permitted for land application during the growing season and, in winter, allowed to direct discharge. The receiving water may be less sensitive (higher flows, lower temperatures) in the winter as well.

Thermal only: Thermal discharges, particularly from power plants, may be controlled based on the expected temperature of the receiving water.

Fecal coliform: This is typically implemented through a seasonal standard and permits, and is covered in more detail in section 2.3. The basic goal is to reduce Chlorine residual by limiting chlorination when not required to actually protect the public health and welfare from high levels of fecal coliform (i.e. when body contact recreation is unlikely and bacterial growth is slow).

2.1 Summary Chart for Seasonal Permits

		Extent of Use	# Seasons	Criteria and Comments
Region I	Connecticut	Frequent	2-3	Flow, spawning, temperature/ammonia
	Maine	Infrequent	2	Flow, treatment capability
	Massachusetts			
	New Hampshire	Infrequent	2	Flow, treatment capability
	Rhode Island	Infrequent	2	Flow, treatment capability
	Vermont			
Region II	New Jersey	Infrequent	2	Primarily spray irrigating summer
	New York	Fairly common	2+	Primarily flow
Region III	Delaware	Infrequent	2	Just recently started using them
	Maryland	Very Infrequent	2	1 Municipal, no Industrial
	Pennsylvania	Fairly common	2	Mostly BOD, 2 seasons
	Virginia	Always Considered	2	5-10%, primarily winter BOD & Nutrients
	West Virginia	All municipal	2	Industrial only when permittee does analysis
Region IV	Alabama	Frequent	3-6	Most common for paper mills
	Florida	Fairly Common	2-12	Flow
	Georgia	Frequent	2-12	Almost all AWT municipals, usually 4 seasons
	Kentucky	Frequent	2	Municipals ammonia and DO
	Mississippi	Infrequent	2	Recently started using them in difficult cases
	North Carolina	Frequent	2	Check in almost all cases
	South Carolina	Frequent	2	BOD, Ammonia, DO, Flow, pH, Temperature (4 seasons), Std.
	Tennessee	Frequent	2	Municipals for ammonia, based on temperature
Region V	Illinois	Very Infrequent	2	Regs do not allow; 1-2 for winter performance problems
	Indiana	Always consider	2	Municipals: technology performance. Industrials: BOD, Ammonia
	Michigan	Frequent/Routine	2-4	Many municipals, and a few Industrial. Routine for municipals
	Minnesota	Frequent	2-4	Always 3 seasons for Ammonia. Consider permittee proposals
	Ohio	Infrequent	2	Only for temperature limitations, like power plants
	Wisconsin	Infrequent	2	Ammonia and fecal coliform

2.1 Summary Chart for Seasonal Permits

		Extent of Use	# Seasons	Criteria & Comments
Region VI	Arkansas	12	2-4	All municipals, BOD and Ammonia
	Louisiana	Under 10	2	3-4 municipals for Ammonia, a few pulp & paper
	New Mexico	1-2	2	Municipals, based on Ammonia
	Oklahoma	None		
	Texas	Under 20	2	12 municipals, a few pulp & paper
Region VII	Iowa	Frequent	2	Primarily flow related
	Kansas			
	Missouri	Few	2	Winter limits, and algae noncompliance problems
	Nebraska	Frequent	2	Reduce Chlorine residual in winter
Region VIII	Colorado			
	Montana	Frequent	2+	Primarily Ammonia: pH and temperature limits
	North Dakota	Frequent	2	Ammonia: temperature and pH
	South Dakota	Frequent	3-4	Ammonia, also some seasonal BOD limits
	Utah	Frequent	2-4	Municipals Ammonia: temperature, pH, flow
	Wyoming	Frequent	2-12	Municipals Ammonia, almost all cases
Region IX	Arizona	Frequent	2	Land application and irrigation seasons
	California	Few to None	NA	Not needed in the state
	Hawaii	None	NA	Not needed in the state
	Nevada	Frequent	2	Mostly based on irrigation seasons
Region X	Alaska	None	NA	Seasonality not much of an issue
	Idaho	Frequent	2	Flow differences in summer and winter
	Oregon	Frequent	2	Flow: wet and dry seasons
	Washington	Infrequent	2	Phosphorus and ammonia, in the Spokane River

Complex: The state models the discharge against monthly average stream characteristics, groups similar months into seasons, and issues a permit based on the expected receiving water requirements.

Exhibit 2-1 shows the extent of use of seasonal permits, along with some comments on the types used in the particular states. Seasonal permits are much more common for municipal dischargers than for industry. Based on the interview notes,

4 states consider seasonal permits in ALL or ALMOST ALL cases;
10 states consider seasonal permits for ALL MUNICIPALS;
16 states consider seasonal permits in CERTAIN COMMON TYPES of situations;
6 states consider seasonal permits ON REQUEST from the permittee or in certain uncommon types of cases;
5 states consider seasonal permits only in EXCEPTIONAL situations;
5 states find seasonal permits NOT APPLICABLE to their conditions.
Data was NOT AVAILABLE for 4 states

Obviously, seasonal permits find a high degree of acceptance by the states.

2.2 Barriers to Increased Use

The high degree of acceptance of seasonal permits is matched by state comments that seasonal permits require few extra resources and present few barriers. However, there is some variation in the resources required, and this is the area where we have the greatest amount of useful information.

Level of Effort: Many states issue seasonal permits with minimal extra requirements for analysis: either the seasonal permits are always considered, or the extra analytic work is very small. Seasonality is standard practice, whether the permitting process requires monthly analysis or no analytic effort. Iowa's comment was typical: "Seasonal permits take a little bit longer, but the process is basically standardized." Some states, such as Pennsylvania, routinely use seasonal multipliers. Indiana reported that seasonal permits require an extra 25% effort in modeling, while Maine suggested 50%.

North Dakota, Utah, and South Dakota all found the extra effort in data collection and modeling to be extensive. Alabama reported that seasonal permits "required more manpower to research records and flow characteristics, more negotiation with the dischargers, and more modeling." Even in states where seasonal permits are common, this type of comment was fairly frequent. New Jersey found that extra effort was required for coordination within the agency and with EPA. Several states also mentioned extra time required to help the dischargers understand the requirements.

Barriers: In Delaware, seasonal permits are very infrequent. The state's position is that high quality water is required at all times. West Virginia requires industrial dischargers to do the extra analytic work required for seasonal permits, and Minnesota has a similar policy. Illinois regulations do not allow seasonal permits.

Region I reported that the EPA Permit Compliance data system could not easily handle permits with more than two seasons, and required that permits start on the first of a month. This was not mentioned by the other regions.

Overall, there are only a few states where seasonal permits are uncommon, or where there are extensive barriers to their use. In most cases, the states have internalized the extra resources requirements, and see seasonal permits as a regular part of the permitting effort -- they may require more effort than a simple permit, but this is expected and understood.

2.3 Options for Increased Use

Seasonal permits have two major advantages to the state and permittee: they may allow compliance which would otherwise be impossible, and they can significantly reduce the costs of treatment. Where the technology is sensitive to temperature, as with trickling filters, seasonal permits can bring a plant into "compliance" without changing its discharge. Where certain equipment, for example for nutrient removal, is expensive to operate, it can be turned off in nonsensitive periods, leading to lower costs.

It has been argued by numerous parties that municipal compliance is much harder to achieve than industrial. In many cases, the state agencies and regional offices look for opportunities to reduce the municipal burden, while still achieving the key water quality goals. Seasonal permitting has provided such an opportunity in many cases, and -- partly as a result -- has been widely embraced.

On the other hand, seasonal permits for industrial dischargers are much less frequent. This is partly because the types and quantities of discharge do not warrant seasonal permits as frequently, but may also be because the industrial permittees are more likely to be required to do the modeling and analysis themselves.

Overall, seasonal permits are an example of a successful innovation: they are now a standard part of the permitting process in many states, and are considered in most cases where they might be applicable. Extra resources are required, but ways have been found to limit the level of resources, and to provide the necessary resources within the basic permitting structure.

EPA might be able to increase use through technical assistance, but this would probably be most effective if done using state staff. For example, states with extensive and successful seasonal permitting might be encouraged to help other states set up similar programs. Training courses, peer matching, or similar approaches could be used.

EPA procedures do not appear to unreasonably limit the use of seasonal permitting. There does not appear to be any major change required in agency procedures or guidelines, based on the state and regional comments.

Chapter 3

VARIABLE PERMITS

3.1 Current Use

Variable permits also have a significant level of use by the states, as shown in exhibit 3-1. There are three basic types:

- Temperature related, where discharge is controlled by the temperature of the receiving stream;
- Flow event related, where discharge is allowed only when flows are at or above a particular level; and
- Flow related, where the quantity of discharge varies smoothly in relation to the quantity of flow.

Stream temperature is fairly easy to monitor, so permit requirements that the stream temperature not exceed a particular value are straightforward. The permits may also set the allowed change in stream temperature based on the temperature upstream from the release. Such limitations should have a favorable economic effect on the dischargers, compared to maximum temperature change limits unrelated to stream temperature.

Flow event discharges are very common, and arise when two conditions are met: the discharger has storage options for the waste, and the streams are either intermittent or vary widely in flow levels. The most common situation is probably a small municipal lagoon discharging to an intermittent stream, but there are cases of industrial storage during low flow periods as well. In North Dakota, for example, intermittent dischargers "may not discharge without permission"; they call the state agency where staff members use information on statewide flows, weather, and temperatures to decide whether to allow release on a particular day.

The most complex situations are those where the quantity of discharge varies with the streamflow. These are not simple on/off discharges like the flow event cases, but generally involve a curve relating discharge flow to streamflow. Mississippi and some other states have "Hydrograph Controlled Release," (HCR) for municipals, where the discharger is provided with a curve relating the quantity of discharge to the streamflow or gauge.

3.1 Summary Chart for Variable Permits

		Extent of Use	Criteria and Comments
Region I	Connecticut	Evaluation	Mill dams; flow
	Maine	15 permits	Flow and dilution, shifts between spray irrigation and discharge
	Massachusetts		
	New Hampshire	None	Would expect inadequate regulatory control and compliance problems
	Rhode Island	None	(1 written by EPA before delegation). Probably weaken permit.
	Vermont		
Region II	New Jersey	None	Permittees need certainty for design; monitoring hard
	New York	Some	Primarily industrial, flow-based. Applicant does gauging.
Region III	Delaware	None	Not interested
	Maryland	1	Municipal; 1 industrial in past
	Pennsylvania	Some	Lagoon discharges
	Virginia	None	
	West Virginia	None	Recently changed regulations to allow. Consider on discharger request
Region IV	Alabama	25-30	
	Florida	2 of 800	Cases where reaeration of stream required. Both industrial.
	Georgia	1 or 2 of 2000	Bad idea. Did not work. Hold and release might be OK.
	Kentucky	None	No large industries on small streams.
	Mississippi	Few	Industry flow and temperature. Also HCR for small municipals (see text).
	North Carolina	Few	Discharge related to dam release
	South Carolina	None	Too complicated
	Tennessee	Few	Special cases, such as major industrials downstream from a dam
Region V	Illinois	1	Industrial, storage when low flow
	Indiana	Few	Flow based, for waste stabilization lagoons: discharge on high flow
	Michigan	Few	Storage lagoons, discharge on high flows; "try to avoid"
	Minnesota	Few	Like Indiana, and 1 power plant discharge based on water temperature
	Ohio	None	Complicates permitting process
	Wisconsin	Major	Industrials, flow and temperature.

3.1 Summary Chart for Variable Permits

		Extent of Use	Criteria & Comments
Region VI	Arkansas	Few	No municipal, a few industrial (pulp & paper)
	Louisiana	Few	1 municipal lagoon, few industrial
	New Mexico	None	
	Oklahoma	Few	Pulp & paper based on flow
	Texas	Few	Industrial pulp & paper based on actual flows
Region VII	Iowa	Few	Industrials, flow based, usually reissues
	Kansas		
	Missouri	Few	Large municipal impoundments on small streams, flow related
	Nebraska	Few	Mostly industrial -- large alcohol plants (BOD, DO); flow-based permits
Region VIII	Colorado		
	Montana	Few	Some industrial variable permits, based on measured flows & temperature
	North Dakota	Some	Intermittent dischargers "may not discharge without permission"
	South Dakota	Some	Flow related, for municipals. Rapid City: Flow, temperature, pH
	Utah	None	Would consider if there was a justification
	Wyoming	None	Would consider, but require permittee to do the analysis. No requests yet.
Region IX	Arizona	Few	Flow related, discharge with flow events
	California	Frequent	Flow event related on spawning streams
	Hawaii	Two	Flow events, for example sugar mill discharges
	Nevada	Few	Flow, related to irrigation discharge (to land or stream)
Region X	Alaska	None	
	Idaho	3-4	Municipals on Boise River, based on flow conditions
	Oregon	None	One plant which must buy water to meet streamflow requirements
	Washington	None	Would consider if appropriate

A key prerequisite is a good measure of streamflow: typically, this involves either gauging stations or, in a few cases, dam controlled streams where the quantities released are known. The gauging stations can be either public or provided by the discharger. In some cases, dischargers may choose between direct discharge or transfer of the waste to a municipal plant, based on the stream conditions.

There are a few unusual cases, such as the reaeration permits in Florida (where aeration is required under certain stream conditions). However, these are clearly exceptions for very special cases.

Variable permits are not common, but are used to some degree in about half of the states. They tend to be used in special circumstances, and only for a few cases per state, on average. As expected, Wisconsin has gone farthest in this area.

3.2 Barriers to Use

There are far fewer variable permits than seasonal ones, even though variable permits may provide more effective use of assimilative capacity and lower risk. In part, this is because variable permits are much harder to monitor, and many treatment technologies are not amenable to frequent changes in discharge quantities.

The states reported little extra effort was required in either temperature or flow event permits; there might be some extra education of the discharger, but the rules were simple and easy to implement. Monitoring also was fairly easy. The flow-related permits were more troublesome: for those, it is necessary to identify a source of flow data, design a monitoring program, and -- in some cases -- model the stream under various flow conditions.

The states not using variable permits identified the problems in monitoring and control as the greatest perceived difficulty. They felt that dischargers should design for worst case conditions, and that variable permits would provide uncertain design criteria. The effort involved in variable permits was not a major concern in the states with such permits, though several stated that the permittee was (or would be) required to do much of the analysis and/or gauging.

It is worth mentioning that West Virginia recently changed its regulations to allow variable permits, while Connecticut is evaluating them and several states are willing to consider variable permits on the request of the permittee.

3.3 Options for Increasing Use

As currently implemented, variable permits are typically applied in very limited situations. They are most common for sources with storage capacity (or alternatives, such as land application or discharge to another treatment plant) on small streams with highly-variable flows. The discharger measures the flows, and either starts discharging at high enough flows, or varies the discharge quantity based on the flow.

It would be fair to say that the states consider seasonal permits easier, and will usually issue seasonals instead of variables. Wisconsin seems to be the main exception to this, though most states will consider variable permits if a discharger requests. Variable permits contingent on parameters besides flow and temperature are extremely uncommon: there are a few nationally at most.

However, most of the states will consider a flow-related variable permit if the discharger requests it; there are few serious legal or procedural limits. The discharger will have to make satisfactory arrangements for monitoring, and this is easiest when there is a nearby public gauging station or the stream is controlled by a dam.

Technical assistance from states with extensive variable permitting to their peers is likely to be useful, as with seasonal permitting. In addition, EPA might provide some suggestions ("guidance" might be too strong) on the types of situations where conventional, seasonal, and variable permits are most appropriate. Such suggestions should be developed in conjunction with state staff, to make sure that they meet the practical needs of the states. The suggestions should include the types of modeling and monitoring required. Obviously, efforts in this direction have been underway in OWRS; our conclusion from the interviews is that the states would welcome them.

Chapter 4

SEASONAL STANDARDS

4.1 Current Use

Most seasonal standards have not been applied for economic reasons. They are imposed for environmental benefits. The most common cases have been increases in the winter Fecal Coliform standard, which allows a reduction in chlorination (and therefore in chlorine residual).

Fecal coliform is primarily a concern for body contact recreation, while chlorine residual is a concern for ecosystem and (treated) drinking water. In winter, recreation uses are uncommon, and bacterial growth is slowed; reducing the chlorine residual while increasing the fecal coliform level is a useful environmental tradeoff. Many states in the Northern half of the country have considered such standards, and made the necessary changes in their regulations.

Fecal coliform seasonal standards for recreational areas were found in 10 states, with two others considering or experimenting with them. These states were

New York
Minnesota
Nebraska
South Dakota
Alaska
Connecticut (experimental)

Indiana
Wisconsin
North Dakota
Wyoming
Idaho
Kentucky (considering)

Obviously, these are all states with real winter weather, where the standards change makes environmental sense.

There is one other way in which seasonal standards have commonly been applied: to tighten DO standard in spawning streams during the actual spawning season. Higher DO levels are required, particularly for trout streams. This was found in 8 states.

In addition, Ohio has a temperature standard (which might also be handled through a variable permit, as in other states). North Dakota provides a seasonal standard for unionized ammonia. Washington has one area with special DO conditions where the standard is set seasonally (both seasonal and site-specific).

4.1 Summary Chart for Seasonal Standards

		Extent of Use	Criteria and Comments
Region I	Connecticut	None	
	Maine	Experimenting	Reduced chlorination and Fecal Coliform
	Massachusetts		
	New Hampshire	None	
	Rhode Island	None	
	Vermont		
Region II	New Jersey	None	Not very interested
	New York	Fecal Coliform	Chlorination only in summer
Region III	Delaware	Trout spawning	Designated use changes by time of year
	Maryland	None	Few state toxics standards
	Pennsylvania	None	Too complicated
	Virginia	None	Law requires standards to be annual
	West Virginia	None	Uses constant throughout year
Region IV	Alabama	None	Structure of law would make it difficult
	Florida	None	Not encouraged because of complications
	Georgia	None	Proposed seasonal fishing classification
	Kentucky	None	Considering Fecal Coliform
	Mississippi	None	
	North Carolina	None	Seems possible to use them
	South Carolina	None	
	Tennessee	None	Might consider them for fish habitats
Region V	Illinois	Ammonia	Best professional judgment
	Indiana	FC & DO	Fecal coliform, recreational season; minor DO variations for trout spawning
	Michigan	Temperature	Very difficult to change standards because of state rules
	Minnesota	FC and DO	Recreational waters
	Ohio	Temperature	
	Wisconsin	FC & DO	DO in spawning areas

4.1 Summary Chart for Seasonal Standard

		Extent of Use	Criteria & Comments
Region VI	Arkansas	Few	DO spawning standards
	Louisiana	None	Maintain water quality year round
	New Mexico	None	No extensive problems, few major dischargers
	Oklahoma	Fecal Coliform/DO	Little extra effort
	Texas	None	Not allowed by state regs, not necessary
Region VII	Iowa	None	
	Kansas		
	Missouri	Fecal Coliform	Recreational use
	Nebraska	Fecal Coliform	Few
Region VIII	Colorado		
	Montana	Fecal coliform	Municipals only
	North Dakota	Fecal Coliform	During recreation season; also unionized ammonia seasonal standard
	South Dakota	Fecal Coliform	
	Utah	None	Doesn't see justification
	Wyoming	Fecal Coliform	Most segments in the state
Region IX	Arizona	None	
	California	Yes	DO in spawning areas
	Hawaii	None	Note applicable given climate
	Nevada	Yes	DO in spawning seasons
Region X	Alaska	Fecal Coliform	
	Idaho	Fecal Coliform	
	Oregon	Salmonids	Do spawning standards; considered fecal coliform
	Washington	None	1 complex site with seasonal DO standard -- see text

4.2 Barriers and Potential

The standard setting process is a difficult one for the states. Public hearings are required for any changes, and standards changes also involve work with the Boards which typically head or review many environmental agencies, not just agency staff actions such as permits.

Thus, the agencies are extremely reluctant to consider changes in their overall process of setting standards. This is particularly true for site specific standards (see below) where the effort may not be warranted for a single case, but it also applies to seasonal standards. Given the discussions with agency staff, it appears unlikely that they would use economic benefits as a reason for proposing seasonal standards.

On the other hand, seasonal standards to protect particular uses (such as trout spawning) or provide other environmental benefits (such as the Fecal Coliform/Chlorination tradeoff) are relatively easy to implement.

4.3 Options for Increased Use

Seasonal standards which have clear environmental benefits, and limited cost, have been implemented by several states. Apparently, no other kinds of seasonal standards have been implemented, or even considered.

Therefore, it appears unlikely that the state staff will be interested in attempting to implement seasonal standards for economic reasons. In addition, the standard setting process is long, and involves numerous opportunities for public comment. The length and uncertainty of the process greatly reduces any advantages the discharger might gain. Overall, this does not appear to be an attractive alternative to the states, and there is little EPA could do in the short-term to make it more attractive.

Of course, major changes in the Clean Water Act, or inclusion of seasonal factors in the next revisions of the national Water Quality Standards documents, could change this. However, the effort is likely to be extensive, and the economic and environmental benefits relatively small.

Chapter 5

SITE-SPECIFIC STANDARDS

5.1 Current Use

There are three classes of site-specific standards in the existing state programs:

- Standards set for very special cases, such as natural background levels which violate the statewide standards or economic conditions;
- Standards (typically for toxics) which are set for specific segments in advance of setting statewide standards.
- Standards in states which are attempting to make all of their standards site-specific, based on actual or proposed uses and real conditions, and move entirely away from statewide standards.

The first of these was identified as an "innovation", but the others are at least as common, and equally interesting.

In addition, some states allow variances from the standards for economic reasons, and such variances are set by a different administrative process than the standards. Minnesota, Illinois, and West Virginia are examples. These are identical in their effect to economics-related site specific standards. Wisconsin is just beginning to implement site-specific standards.

In Illinois, an aspartame manufacturer had high TDS, with no technology for treatment except total evaporation. The solution was to use municipal sewage for mixing and dilution, and to modify the water quality standard. A large iron discharge was allowed through reclassifying the 3/4 mile stream receiving the discharge. Minnesota has granted variances for Phosphorus, and the standards board in West Virginia has granted two power plants variances or changed uses.

Several streams have natural or preexisting levels of particular components (Copper in Pennsylvania, DO in Delaware, etc.) which violate the statewide standards. This is not surprising, since the statewide standards are often copied wholesale from EPA documents. Most states have had to respond to these violations, either by ignoring the problem (a frequent solution when there are no significant dischargers) or by revising the

3.1 Summary Chart for Site-specific Standards

		Extent of Use	Criteria and Comments
Region I	Connecticut	None	Some site-specific toxics criteria work
	Maine	None	
	Massachusetts		
	New Hampshire	None	
	Rhode Island	None	
	Vermont		
Region II	New Jersey	None	Not interested
	New York	None	
Region III	Delaware	Yes	DO naturally low in I canal; toxics are site-specific evaluations
	Maryland	I	Municipal plant on stream where DO naturally low
	Pennsylvania	Yes	Cold water fishing streams (extra protection)
	Virginia	Yes	James River DO by segment
	West Virginia	Somewhat	State will work with discharger on variance from standards (changed use)
Region IV	Alabama	Temperature	Fish habitats for cold water spncies on Tennessee River
	Florida	None	Has only confirmed national standards when checked
	Georgia	Yes	Where AWT required, analyze local conditions very carefully
	Kentucky	None	Would open process up to too much effort and legal entanglment
	Mississippi	None	"Ephemeral" classification for drainage ditches
	North Carolina	None	Seems possible to use them
South Carolina		None	Normal classifications should cover almost all situations
	Tennessee	Yes	Based on natural conditions (Copper) and stream modeling
Region V	Illinois	Yes	Consider economics in permitting; have modified standard for discharger
	Indiana	Few	Temperature-based
	Michigan	None	Does not want to consider
	Minnesota	Few	Variances possible based on discharger analysis. Some for Phosphorus
	Ohio	Yes	Trying to get away from classification to individual stream evaluation.
	Wisconsin	None	Just starting to implement them

5.1 Summary Chart for Site-Specific Standard

		Extent of Use	Criteria & Comments
Region VI	Arkansas	Extensive	Implementing 9 internal regions with standards. Variances in past.
	Louisiana	Few	DO site-specific generally; toxics are statewide
	New Mexico	None	Not necessary
	Oklahoma	None	
	Texas	None	Statewide standards must be used
Region VII	Iowa	None	
	Kansas		
	Missouri	None	
	Nebraska	None	
Region VIII	Colorado		
	Montana	None	
	North Dakota	None	
	South Dakota	None	Would have to go through Board of Natural Resources
	Utah	None	
	Wyoming	None	No legal authority -- segments set by oversight Board
Region IX	Arizona	None, yet	Nitrogen and Phosphorus standards for certain sites are being added
	California	Yes	Nearly all streams have some site-specific toxics standards
	Hawaii	1	Many water quality classes, but 1 site-specific: Pearl Harbor
	Nevada	Yes	All streams modeled, with site-based standards
Region X	Alaska	None	
	Idaho	1	Boise River: fluoride and temperature
	Oregon	None	
	Washington	Yes	Site-specific standards for parameters not included in overall standards

standards for those streams. The revisions can either be done by adding a subclass to the overall standards ("Class B except high natural levels of Zinc") or by setting a site-specific standard. The effect is a one-location subclass, for example "Pearl Harbor" in Hawaii.

Many states have also had difficulty in developing statewide standards for some nutrients and toxics. They want to be consistent with EPA's recommendations, which have not been issued. And there is strong political pressure from various parties on levels for each toxics constituent. Therefore, many states have made a simplification: they have set standards only for key water bodies and the key toxics constituents in them. The standards setting process is still complex and has a significant administrative burden, but it is feasible. Examples include Washington, Connecticut, Arizona, and California.

Other states have taken a more comprehensive approach to standards and uses, which is to try to analyze each stream individually. There are no required national standards beyond "fishable-swimable," and these states are working to set parameters based on surveys and modeling of each segment. Examples include Ohio and Nevada.

5.2 Barriers to Increased Use

The negative comments provided about seasonal standards were reiterated, with even more strength, on site-specific standards. Many states thought that such standards were nearly impossible to get approved. Others stated that the technical analysis would cost more in resources than the value of the result. Overall, states claimed that site-specific standards would be a hard way to gain economic benefits from innovation.

Those states which allow variances from the standards come closest to the basic innovation proposals. Standards changes still typically have to go through the Board which sets the standards, but the administrative approval process is simpler, and the permitting agencies help when they agree with the proposal. The variances provide an opportunity for the consideration of both natural and economic factors affecting a particular stream, and the hearings allow all views to be stated, while keeping the administrative process manageable.

5.3 Options for Increased Use

In many states, there is little potential for this innovation, and it is unlikely that any EPA actions could change this. Few have procedures in place for considering economics in setting of individual site standards. For those which do, the variance procedure seems to work effectively. However, adding a variance procedure to existing enabling legislation is, at best, a difficult political act, and few of the non-variance state agencies are likely to support it.

The greatest potential for innovation comes in those states which do not have overall standards, but set the stream standards based on individual uses and stream conditions. There is a general national goal of coordinating standards and uses, and these states are proceeding most quickly in that direction. This will typically increase the data and analysis required of the agencies, but provide increased flexibility in adapting approaches to the particulars of the situation. These tradeoffs are well-known, having been the basis for debate in Clean Water legislation since at least 1967.

If EPA wants to promote effective use of site-specific standards for economic and environmental gains, it should continue the process of supporting decreased reliance on fixed national standards (adopted by the states) and increased consideration of the uses and ecological and chemical systems of the particular water bodies. Again, communication between the states on this would be useful.

Chapter 6

TRADING

6.1 Current Use

Several forms of trading were identified for this study. They include:

- Pure Trading: Involves two or more sources. One, which has low costs for better treatment, reduces its discharge to make up for increases by the other, which faces higher costs. As a result, the total cost for compliance is reduced. The source with the higher unit costs pays the source with the lower costs in some manner.
- Joint Treatment, where two or more dischargers join to build a treatment plant. We were concerned with situations where two industrial permittees invested in joint treatment on a single permit, particularly where they produced significantly different products.
- Trading as part of wasteload allocation: Situations where the wasteload allocations do not call for a straight percentage rollback by all dischargers. Instead, the dischargers negotiate (often with state assistance) an alternative which lowers their total costs by reallocating the wasteloads, and that alternative is written into the permits.
- Point/nonpoint trades, where a discharger takes responsibility for some easily-treated nonpoint source wastes, and avoids investment in some more expensive point source treatment.

Pure trading: As was expected, the current use of pure trading is limited. The cases of pure trading are generally known to EPA already (e.g. Dillon Reservoir). The Wisconsin effort to implement trading on its major rivers is also well-known. We did not find any surprises. wir

Joint treatment: The survey had to distinguish between the widespread municipal pretreatment cases, and cases where multiple industrial dischargers had to agree on their level of participation in the facilities. There are many POTW's with large industrial flows, and charge systems based on waste characterisitics; while such systems provide economic incentives for waste reduction and effective industrial investment, they are not our concern here.

However, several cases were identified where multiple plants share a single treatment facility, including an industrial park in Oklahoma with

6.1 Summary Chart for Trading

		Comments
Region I	Connecticut	No allocations among major industrials yet. Concerned with cooperation, monitoring. State apportions wasteloads. No useful cases of point/nonpoint.
	Maine	Potential cases along Penobscot. Several large projects looking to locate/expand. Currently first-come, first-served. Some cases of industrial discharges treating domestic waste.
	Massachusetts	Crane & Co. industrial, to municipal in low flow conditions; Ten Mile River currently undergoing wasteload allocations, many major sources in 1 segment; Blackstone River failed case: 1 large and some small municipals, but could not agree on a trade to avoid AT at the smaller communities.
	New Hampshire	No proximity. Have trading within one plant (traditional bubble).
	Rhode Island	Can consider relative costs in wasteload allocation. Wants specific permit for each plant, so considering trading through allocation and administrative action. Will be allocating Pawtuxet River (3 major munic., 1 Major and 1 minor industrial on low flow)
	Vermont	
Region II	New Jersey	Would consider a proposal from dischargers. Some trading done through wasteload allocations
	New York	Not interested, and don't see a purpose to it because it might limit growth of either side.
Region III	Delaware	Not considered; also, few cases with 2+ discharges on the same segment. Permit writers very independent and strong minded.
	Maryland	Little need, have not explored. Would consider proposals in allocations.
	Pennsylvania	Limited consideration in negotiating wasteload allocations.
	Virginia	No pure trading; industry not interested. Extensive joint treatment at Hopewell municipal plant (85% industrial BOD load); industry cooperation on monitoring and cost allocation. One case of discharger flow augmentation. Arguably a point/nonpoint trade.
	West Virginia	Would consider discharger request accompanied by analysis.
Region IV	Alabama	One process/strormwater trade in a single plant. May be legal problems in multi-plant cases, but would consider discharger proposals.
	Florida	Considrred, and attempted to develop in past. Dischargers generally can not agree.
	Georgia	Concerned with complications. Would try to avoid.
	Kentucky	Majors generally on large streams, so little demand. Would try to avoid.
	Mississippi	Not used. No proximity.
	North Carolina	Not used. No proximity. Willing to try if WQ maintained.

6.1 Summary Chart for Trading (cont.)

		Comments
	South Carolina	None yet. Willing to consider, and help negotiate. Currently Bowater Carolina,Corp (papermill) wants to expand on Katawba River, and is attempting to negotiate revised allocation with Celanese, major municipal, and others. State is delaying permitting to see if an environmentally-acceptable compromise can be reached.
	Tennessee	Dealing with toughest cases now, but no suggestions of pure trading. Do consider costs in wasteload allocations, and would be willing to consider trading.
Region V	Illinois	Economics considered, but regs. require "pipe-by-pipe" application of standards. Trading would probably require at least 2-3 years for changes in regs.
	Indiana	Trading not encouraged, and few dischargers in proximity. Integrated steel manufacturer allows other industry to use part of polishing ponds. Would consider trading in wasteload allocation.
	Michigan	Pure trading would be considered on discharger request. Have done negotiated wasteload allocations: for example, Dow, 2 municipals, and nuclear powerplant. Pure trading might not be much extra work, but responsible party must be identified.
	Minnesota	Would consider, but few applicable cases.
	Ohio	Trading is not a realistic policy.
	Wisconsin	Extensive experience in innovations, including trading. Allocations now allow trading, particularly on Fox and Upper Wisconsin R. Dischargers enter into joint contract, with state review and approval.
Region VI	Arkansas	No trading. Few opportunities.
	Louisiana	I case where two chemical plants share a single ditch system.
	New Mexico	No trading or policy on it. Few opportunities.
	Oklahoma	I commonly-owned treatment plant in an industrial park, including fertilizer and paper finishing facilities.
	Texas	I shared industrial treatment facility (organic chemicals). Many possibilities - but no activity yet - in the Houston Ship Channel.

6.1 Summary Chart for Trading

		Comments
Region VII	Iowa	No trading: concerned about negative WQ effects.
	Kansas	
	Missouri	Open to proposals, but trading seems difficult to set up and monitor.
	Nebraska	None. Little potential.
Region VIII	Colorado	Dillon Reservoir, of course: see other reports.
	Montana	One point/nonpoint single discharger. Would consider proposals from dischargers.
	North Dakota	Not used; few opportunities, and too much effort.
	South Dakota	Not used; few opportunities. Would consider proposals.
	Utah	One within plant trade allowed. Concerned about technical standards, extra effort, wasteload allocation, and 3rd party agreement between dischargers.
	Wyoming	May not be legal. No opportunities to use, in any case.
Region IX	Arizona	No opportunities for pure trades. May be some point/nonpoint possibilities on salinity.
	California	Insufficient density for trading.
	Hawaii	Few direct discharge industrials, and those not close to each other.
	Nevada	Few opportunities. Salinity trades on Colorado possible.
Region X	Alaska	No trading. Few eligible situations.
	Idaho	No trading. Few eligible situations.
	Oregon	Few situations. Do not consider economics in wasteload allocations. One possible case with 3 municipal minors and many dairy farms on a single bay.
	Washington	Few situations. Trading has not been considered legal.

discharges from fertilizer and paper finishing plants. Region VI, in particular, had major joint treatment facilities.

Wasteload Allocation Trading: The greatest potential for trading in the near-term, and the area with the most past activity, is in the setting of wasteload allocations among dischargers. In some states, the economics of treatment can be considered by the state regulators in setting the wasteload allocations.

For example, New Jersey, Michigan, and Pennsylvania have negotiated allocations with dischargers. In Michigan, the case involved a major chemical plant, two municipals, and a power plant. The Pennsylvania respondent stated that this was standard practice, in an attempt to find a solution which is acceptable to all parties. We do not know whether dischargers made compensation agreements or entered into contracts among themselves as part of these negotiations.

Massachusetts and Region I have planned a similar activity for the Ten Mile River case, and made an attempt with municipals in the Blackstone River. South Carolina is currently delaying permits in the Katawba River in expectation of an discharger-negotiated revised set of allocations. The Bowater Carolina Corp. wants to expand, and has been negotiating with Celanese, the City of Rockhill, Charlotte, and others.

Several states mentioned failed attempts to get industries to agree on mutually-beneficial allocations. Many states are willing to accept discharger proposals, but uninterested in being the source of the trading proposal, or the mediator in multi-party negotiations. The closest model might be EPA's role vis-a-vis the industry committees at Superfund sites.

In other states, economics can not be considered, or the same rollback must be required for all dischargers. Trading within wasteload allocations is not possible in those situations.

Point/nonpoint trades: The point/nonpoint trades found were for single plants, generally with on-site nonpoint discharges along with their point source discharge. They were in Montana and Alabama. In addition, there were several traditional bubbles: point/point trades within a single plant. In Florida and Virginia, among others, cases were identified where a discharger use flow augmentation or aeration to reduce discharge pipe treatment. These could be argued as point/nonpoint trades. However, no cases were found of actual reduction of off-plant nonpoint discharges as part of a trade.

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6.2 Barriers to Increased Use

Most of the states were familiar with the concept of trading, and many would be happy to consider a trade if proposed by dischargers, particularly as part of the wasteload allocation process. A few states, such as New York and Iowa, were not interested because of concern for environmental impacts; a few others thought that trading would require too much effort in analysis and monitoring, such as North Dakota. Utah and others were worried about being involved in third party agreements among the dischargers, while Illinois and Washington did not consider trading legal under their regulations. Missouri considered trading "difficult to set up and monitor."

The third party agreements concern is a broad one. Essentially, the states do not want to become involved ("bogged down" was a frequent term) in negotiations among various parties, but want a result which is easy to permit, monitor, and enforce. The responsibility for problems must be easy to determine. This is probably the most significant concern in the actual implementation of trades, particularly for states, such as Florida, where trading has been tried unsuccessfully. In the joint treatment cases, either one plant takes responsibility, or the two firms set up a separate entity to run the treatment.

Perhaps 20% of the states had strong objections to trading as a policy to be implemented by their states. However, at least as many would be willing to consider trading proposals made by dischargers.

The most frequent barrier seen by the states is lack of need for trading: 22 states of the 46 surveyed stated that they would expect few if any cases where multiple industry allocations are needed after BAT. Of course, this is consistent with estimates that there might be a few hundred segments nationally where point/point trades would be useful. However, it means that most states will have little experience or knowledge of trading if a situation arises. In the states which are most responsive to discharger concerns and economics, it will probably have to be the dischargers who propose trading and do most of the work to develop an agreement.

At least one case, in Florida, failed because one discharger sued to stop the process; in Massachusetts, one major and several smaller municipalities failed to agree on a system which would have avoided advanced treatment at the smaller plants. Achieving discharger agreement, even supported by the states, is likely to be difficult.

For point/nonpoint trades, familiarity was the biggest problem; few of the states had thought of this as an alternative, and they were unwilling to assess its applicability during the interview. A few states suggested possible cases: Oregon mentioned one potential site, with 6 small municipals and numerous dairies on a single bay; Maine considered the strong 2-month flows from blueberry processing as potentially applicable, and several Southwestern states thought some trading might be possible related to salinity, particularly for the Colorado. The general response, though, was that point/nonpoint trades were a new idea, and one which would require careful consideration.

Few of the states were specifically concerned with the resources required for trading. They assumed that it would be greated than for normal permitting, but were more worried about whether a trading proposal would work, environmentally and administratively. Typically, the potential trading situations were cases where other options had not worked, and the states were willing to try alternatives, even at greater resource cost.

6.3 Options for Increasing Trading

In those states where trading is illegal or viewed with disfavor, there is little EPA could do to quickly change the perceptions. For the rest of this discussion, we will ignore those cases, which make up roughly 20% of the states.

Most of the states willing to consider trading will not be willing, in the near future, to propose trades to dischargers. The dischargers will probably have to suggest trading as a possibility, and perhaps come to agreement among themselves. Thus, one area where EPA could be active is in describing the situations where trading is appropriate, and the levels of savings which can be achieved. Trade journal articles on the Dillon experiment might be useful, for example. In addition, sample discharger contracts or agreements would be useful.

The states will have little experience in reviewing trading proposals. Their major concerns are likely to be in the areas of modeling, monitoring, and enforcability, and EPA support could be very useful here. Either Headquarters could provide assistance, or -- better in the long run -- regional office staff could be trained in the issues related to trading, and in how to effectively negotiate and review a trading proposal. Of course, state staff might also be trained in states with a high potential for trading.

Several states, particularly in Region I, stated that they would be doing major wasteload allocations within the next year. Others pointed to areas where there is unused assimilative capacity, and several proposals to use that capacity; trading may provide a better allocation than first-come, first-served.

There are a few states, such as Wisconsin, which will not need much help from EPA; however, most will. And they want that help through suggestions, technical assistance, and support, not through new programs. This is a familiar theme in EPA/state discussions.

Chapter 7

CONCLUDING COMMENTS

7.1 A Favorable Example

There were certain theme which stood out in the discussions with the states, and entered into either the specific responses or our subjective interpretations. The material below could have come from a state which generally favors innovations, and has better-than-average interest and capabilities for implementing them:

> General philosophy: Environmental regulatory agency; all procedures and options must demonstrably meet environmental requirements and goals. Within that framework, willing to consider economics, and experiment with procedures which will minimize the burden of compliance. Good working relationship with industry, which includes a clear willingness to enforce when necessary.
>
> Capabilities: Agency does its own stream surveys and water quality modeling. Uses EPA laboratory for organics analysis. May need technical support in complex modeling, but does own wasteload allocations.
>
> Seasonal permits: Uses them frequently, for municipals (particularly with Advanced Treatment systems). This may lead to compliance with temperature-sensitive technologies, or allow certain processes to be turned off in winter. Standard practice is to consider seasonality in permitting, at least for municipals.
>
> Variable permits: A few cases, particularly small municipals with lagoons on low flow streams. Possible one major industrial in a dam-controlled site. Standard practice is to consider event-release permits for intermittent flow streams, and willing to consider other proposals from dischargers (but concerned with problems in monitoring).
>
> Seasonal standards: some exist, for spawning and FC. Not interested in further standards, except on environmental grounds.
>
> Site-specific standards: Considering conversion away from general standards to site-specific models and standards set for each segment. However, this is a monumental task and will not happen soon. At this point, there is a variance procedure in standard-setting, and this has been used by a few sources.
>
> Trading: Only a few potential sites for point/point trades. Have negotiated wasteload allocations among dischargers in the past, instead of using strict percentage rollback. Willing to do so again. Have

implemented one in-plant trade between process and stormwater. Have not yet considered other point/nonpoint trades or banking. Sees some possibilities.

This fictitious "state" will not need help for further implementation of seasonal or variable permits, though some might suggest a shift to more variables and fewer seasonals. The state staff could probably help others with designing seasonal and/or variable permitting programs, and would be useful technical assistance contacts.

However, they will need help in revising their water quality standards, since the goal of universal site-specific analyses is an ambitious one. They will need EPA laboratory resources, in particular. This is not, basically, our area of concern, but it is an important one for the states. Seasonal standards, except for particular environmental concerns, are considered uninteresting by the state.

Trading is the area with the greatest potential economic benefits, and one where the state could use some assistance. There has been some activity in wasteload allocation, but there may be real potential in both point/nonpoint trading and in banking in the growing, water quality limited areas. Here, the state staff are inexperienced, and they could use help from the agency.

7.2 Reality

The example state shows the best (at least, for EPA innovators) that can be expected in a state. There are states which are innovators themselves, such as Wisconsin, and do not appear to need significant assistance in any area. At the other end of the spectrum, a few states had serious operational, resource cost, environmental, or legal problems with each innovation; the list of states was different for each proposal, but there were some in every case.

The remaining states have the expected concerns: modeling, data collection, monitoring, enforcability, and administrative cost. Some were not allowed to directly consider the costs of compliance in permitting or allocations; for others, this was a major issue. But all would be interested in less-burdensome methods of compliance for the plants they regulate.

Based on the interviews, we believe that most states would be willing to experiment, particularly in situations where standard approaches are not very effective. However, especially for relatively-rare situations such as trading, they will need help. The help should not come as extra requirements, but rather as technical support and assistance, from EPA or other states.

Obviously, this is the same position that the states take on most federal programs: they want support, not orders. In this case, though, the states did not directly request money; they were more interested in modeling approaches, permit provisions, monitoring and data keeping methods, and making the innovation work in practice.

The chicken-and-egg problem in trading is a significant one: states will not invest time in learning about trading approaches unless they think they have applicable situations; however, the dischargers may not be able to develop useful trades without state-initiated negotiations. If the dischargers were clamoring for trades, as has been the case with seasonal permits, then many of the state agencies would respond. However, there may have to be a few publicized trading successes before the dischargers -- or the states -- show much interest.

CURRENT STATUS IN USE OF FLEXIBLE EFFLUENT STANDARDS

by

James C. Lamb III
and
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It has been common regulatory practice to set a standard for a wastewater discharge at a single level that applies at all times during the year. The specified requirement was selected to maintain desired stream quality, even with low stream flow and high temperature expected to occur, perhaps, only once in 10 years. Clearly, standards established in this fashion are more stringent than they would be if based on stream requirements at the higher flows and lower temperatures that actually prevail most of the time. The possibility of establishing standards that would allow discharges to vary and use more of the assimilative capacities of watercourses, without contravening water quality standards, was controversial and against policies of most agencies.

In recent years, several agencies have begun to experiment with allowing some flexibility in discharge standards, under carefully controlled conditions. A 1979 survey of regulatory agencies, presented at the Las Vegas WPCF meeting, revealed a clear trend toward increased use of seasonal effluent standards in pollution control programs (1). About two-thirds of the responding states indicated that they were using, or planned to use, some degree of flexibility in standards for municipal and industrial dischargers. The goal was to allow design and operation of treatment plants that conform more closely with actual needs of streams, thereby producing savings in capital and operating costs (2-5).

This paper describes results of a recent survey of regulatory practices that was conducted to update the earlier information. It reports the extent to which flexible effluent standards are being used by state water pollution control agencies, techniques that have been employed in their implementation, and agency perceptions about their advantages and disadvantages (6).

SURVEY METHODS

A questionnaire was prepared that included 24 inquiries about policies, practices, and experiences of the agencies concerning flexible standards and monitoring of discharges from municipalities and industries. Special efforts were made to eliminate ambiguities and to phrase the questions in ways that would facilitate easy and accurate replies. Additional comments clarifying agency positions were solicited and some responded with copies of laws and regulations describing program details. A summary of the survey responses was promised to each agency that supplied the information requested.

The questionnaires were mailed to key personnel in all state agencies, with as many as three follow-up mailings at about one month intervals to those who had not responded. This produced a total of 48 replies, which were used in the summaries reported here. Not all questions were answered by all agencies and some gave more than one answer to some questions. Accordingly, the number of responses vary among the summary tables.

UTILIZATION OF FLEXIBLE STANDARDS

Table 1 summarizes the responses in 1979 and 1983 concerning the use of flexible standards. The data show a striking increase (to 45) in number of states that use some degree of flexibility in establishing effluent standards. Alaska and Mississippi did not respond to the 1983 questionnaire, but both reported in 1979 that they were using seasonal standards at that time. It probably is not unreasonable to assume that they still do.

All of the three states that do not use flexible standards are in the Southwest. One plans to use them in the future and one has not yet seriously considered adopting them. None ruled out the possibility of using them at some future date. The principal reasons cited for not using flexible standards were inadequate agency manpower and financial resources.

No state that has used flexible standards in the past has discontinued that practice, although six states expressed some uncertainty about their future use of them.

TYPES OF FLEXIBLE STANDARDS USED

Table 2 summarizes the types of flexible standards used by the states. The total of responses exceeds the number of states because several reported using more than one type of standard. The most popular approach is the seasonal effluent standard (42 states). Standards based on available stream flows (dilution) also are used often (25 states).

TABLE 1

UTILIZATION OF FLEXIBLE STANDARDS

Response Category	Number of States 1979	Number of States 1984
States Responding	39	48
Using Flexible Standards	21	45
Not Using Flexible Standards	18	3
Planning to Use Them	5	1

TABLE 2

TYPES OF FLEXIBLE STANDARDS USED

Type of Standard	Number of States
Seasonal Effluent Standards	42
Hydrologic-Controlled Releases	25
Monthly Effluent Standards	14
Continuously Variable Standards	5

An important factor to note is that flexibility is included in permits only for some wastewater characteristics, the number and types varying widely among the states. Table 3 shows the parameters for which flexible standards have been issued in each state; there is wide variation in the combinations of constituents, depending on local conditions and views of the agency. Twenty-three states allow flexibility for only one or two constituents and twelve allow it for four or more. Examination of the responses has not revealed any clear geographical patterns in the regulatory practices.

THE DEGREE TO WHICH FLEXIBLE STANDARDS ARE USED

The number of states using flexible standards is important, but one should note that flexibility has not been incorporated into all permits by the states that do use the approach. Table 4 illustrates this important distinction clearly by showing the number of states in the various use frequency categories that were defined in the questionnaire.

Few states (only 4) report that they use flexible standards in over 70% of the permits issued by them, and 26 incorporate flexibility into less than 30% of their permits. This can be attributed partly to conservative use of flexible standards as experience is being acumulated and partly to the fact that several states that now use them started that practice only recently and have adopted the approach principally for new permits or in response to requests when permits are being renewed.

Table 5 summarizes the responses to a question concerning the types of watercourses for which the states have issued flexible standards. Twenty-three indicated that flexible standards have been allowed for all watercourses or all rivers and streams. The others reported more limited application of the approach; only to designated watercourses or sections of them.

Table 6 shows the number of states in which the indicated types of dischargers are considered to be eligible for receiving flexible standards. Table 7 summarizes the data received concerning the numbers of permits issued in each broad category of dischargers and those that actually had been granted flexible standards. Louisiana was the only state that had issued flexible standards to industries, but none to municipalities. Nine other states had granted them to municipalities but none to industries. Four states reported that they had issued flexible standards only to dischargers requesting them; one of those indicated that the policy was being reconsidered and might be discontinued in the future.

TABLE 3

WASTEWATER PARAMETERS FOR WHICH FLEXIBLE STANDARDS ARE USED

State	BOD	Susp. Solids	NH_3-N	NO_3-N	Coliforms		Phos.	Temp.
					Fecal	Total		
Alabama	X		X					
Arkansas	X		X					
California	X	X	X					
Colorado			X					
Connecticut	X	X	X	X	X	X	X	
Delaware	X		X					
Florida	X	X	X	X				X
Georgia	X		X					
Hawaii	X	X						
Idaho	X	X	X		X			X
Illinois			X					
Indiana	X	X	X		X			
Iowa								
Kansas	X		X		X			
Kentucky			X					
Louisiana	X							
Maine	X				X			X
Maryland	X		X		X			
Massachusetts	X	X	X		X	X	X	
Michigan	X		X		X			
Minnesota	X		X		X			
Missouri					X			
Montana		X	X		X			
Nebraska					X			
New Hampshire	X	X	X			X		
New Jersey	X	X	X				X	
New Mexico			X				X	
New York	X	X	X		X	X		
North Carolina	X		X					
North Dakota	X	X	X					
Ohio	X	X	X		X			X
Oklahoma					X	X		
Oregon	X	X						
Pennsylvania			X				X	
Rhode Island	X	X	X	X				
South Carolina			X					
South Dakota	X		X					
Tennessee	X		X					
Utah			X					
Vermont	X		X					
Virginia	X		X	X				
Washington	X	X	X				X	
West Virginia	X	X						
Wisconsin	X	X	X					
Wyoming			X		X			
TOTALS	32	18	36	4	16	5	6	4

Note: Other parameters not tallied above are: TKN(3 states), Residual Chlorine(2), Sulfates (1), pH(1), Organic Nitrogen(1), Turbidity(1), Metals(1).

TABLE 4
FREQUENCY OF USE OF FLEXIBLE STANDARDS

Frequency of Flexible Standards Usage	Number of States
"Always" (virtually 100%)	2
"Usually"(>70%)	2
"Often" (30-70%)	14
"Seldom" (<30%)	26

TABLE 5
TYPES OF WATERCOURSES FOR WHICH FLEXIBLE STANDARDS HAVE BEEN ISSUED

Type of Watercourse	Number of States
All Watercourses	19
All Rivers and Streams	4
Only Selected River Basins	6
Only Designated Segments of Streams	15
Lakes	2
Ocean	1
Determined by Specific Evaluations	4

TABLE 6
DISCHARGERS ELIGIBLE TO RECEIVE FLEXIBLE STANDARDS

Types of Dischargers	Number of States
Municipal Dischargers	43
Non-Municipal Dischargers:	37
Industries	33
Other Non-Municipal Dischargers	27
Only Those that Request Flexible Standards	4
Only Those Demonstrating Economic Benefits	0

Thirty-seven states provided data about the numbers of permits issued, as summarized in Table 7. Across the board, 16% of them included some degree of flexibility (8858 out of 56,987). Examination of the data reveal an exceedingly wide range in the amount of flexible permitting, extending from none or very few by some states to full utilization in Ohio. Some of the states that indicated eligibility of non-municipal dischargers in Table 6 nevertheless did not report actually issuing such permits in the data of Table 7.

IMPLEMENTATION OF FLEXIBLE STANDARDS

The survey included several questions about methods employed in implementing flexible standards. Table 8 summarizes responses to questions concerning the factors considered by agencies in setting the standards.

Stream flow was the predominant factor. The most frequently-used stream flow parameter (25 states) was the minimum average seven-day flow with a recurrence interval of 10 years ($_7Q_{10}$). Seven states use the $_7Q_{10}$ as determined on seasonal bases and four states use monthly $_7Q_{10}$ flows. A few other states have used similar approaches, but somewhat different statistical bases for the flows ($_{30}Q_{10}$, $_7Q_2$, etc.). Most of the states use statistically-determined flows, although some use estimates where flow data are not available.

Temperatures also are widely used and are selected in several ways, including the 90th percentile of recorded temperatures, average monthly temperatures, and projected worst case situations. Some agencies use USGS recorded temperatures and select specific values based on impacts on toxicity of ammonia to aquatic organisms in the stream.

Recreational activities often are used for setting limits for fecal and total coliform organisms and other wastewater constituents. Two states use stream pH in calculating unionized ammonia concentrations in setting ammonia limits.

Limited efforts were made to identify the methods actually used in establishing the flexible standards through posing three alternatives to determine whether they fitted agency procedures and inviting further clarifications of agency implementation methods.

1. The year is divided into two or more "seasons" that change on the same dates each year. Fixed standards then are issued for each season. (39 states).

TABLE 7

NUMBERS OF DISCHARGERS IN EACH STATE

State	Public Trtmt. Works	Non-Public Treatment Works Total	 Industry	Totals
Alabama	100(0)	50(0)	20(0)	150(0)
Arkansas	300(10)	500(0)	NR	800(10)
California	328(>4)	1248(0)	NR	1576(4)
Colorado	500(150)	400(NR)	250(75)	900(225)
Connecticut	89(13)	643(2)	598(2)	732(15)
Delaware	45(2)	75(0)	NR	120(2)
Florida	4400(1)	NR	2100(1)	6500(2)
Georgia	400(30)	750(12)	500	1150(42)
Illinois	750(375)	2250(1125)	1500	3000(1500)
Indiana	450(50)	715(0)	620	1165(50)
Kansas	700(10)	NR(5)	300(5)	1000(15)
Kentucky	257(190)	3117(1647)	892(1)	3374(1837)
Louisiana	3000(0)	1500(NR)	1200(4-5)	4500(4)
Maryland	200(100)	200(100)	NR	400(200)
Michigan	400(50)	50(0)	NR	450(50)
Missouri	600(30)	2100(500)	300(80)	2700(530)
Montana	150(100)	250(50)	NR	400(150)
Nebraska	287(56)	154(6)	72(0)	441(62)
Nevada	75(0)	75(0)	NR	150(0)
New Hampshire	75(5)	75(10)	NR	150(15)
New Jersey	400(30)	1100(20)	1000	1500(50)
New Mexico	69(2)	68(0)	68(0)	137(2)
New York	550(50)	6722(55)	1501(55)	7272(105)
North Carolina	349(25)	2045(44)	98(5)	2394(69)
Ohio	1000(*1000)	1100(*1100)	1100(*1100)	2100(2100)
Oregon	240(220)	463(200)	400	703(420)
Rhode Island	30(7)	150(35)	150(35)	180(42)
South Carolina	330(†)	1035(†)	NR	1365(438)
South Dakota	300(75)	100(10)	50(2)	400(85)
Texas	2257(0)	NR	878(0)	3135(0)
Utah	90(2)	25(0)		115(2)
Vermont	100(2)	NR	110(0)	210(2)
Virginia	1000(20)	1000(300)	1000(300)	2000(320)
Washington	270(10-15)	530(10-15)	470(10-15)	800(25)
West Virginia	150(10)	2500(0)	NR(0)	2650(10)
Wisconsin	568(250)	1000(100)	1000(100)	1568(350)
Wyoming	100(75)	700(50)	600(10)	800(125)
TOTALS	20,909(2954)	36,078(5466)	16,777(1790)	56,987(*858)

Note: Numbers in () represent flexible standards issued.
(*) Ohio indicates that all should or will be flexible.
(†) South Carolina reports 438 total.
NR: Not Reported

TABLE 8
FACTORS CONSIDERED BY AGENCIES IN SETTING FLEXIBLE STANDARDS

Parameters	Number of States
Statistically-Determined Stream Flows	30
Estimated Stream Flows	13
Stream Flow Actually is Specified in Standard	12
Recorded Stream Temperatures	22
Estimated Stream Temperatures	19
Stream Temperature Actually is Specified in Std.	6
Recreational Activities	18
Commercial Harvesting of Aquatic Life	6
Stream pH	2

TABLE 9
POTENTIAL DISADVANTAGES OF FLEXIBLE STANDARDS

Potential Disadvantages	Very Important	Less Important	Not Important
More Paperwork Required	14	23	9
More Agency Monitoring	21	18	8
More Discharger Monitoring	14	24	7
More Agency Personnel Needed	20	17	11
Setting Standards more Complex	25	16	6
Harder to Explain to Discharger	6	26	16
Lower Stream Quality at Times	14	20	9
Poorer Public Relations	5	23	13

TABLE 10
POTENTIAL BENEFITS OF FLEXIBLE STANDARDS

Potential Benefit	Very Important	Less Important	Not Important
More Rational — Defensible	26	17	5
Lower Capital Costs	29	13	5
Lower Operating Costs	31	14	1
Lower Energy Consumption	24	19	4
Fewer Violations of Standards	10	19	16
Better Discharger Relations	12	21	13

2. Different standards are set for each of two or more "seasons", which change from year-to-year in response to certain environmental variables (stream flow, temperature, etc.), without regard to calendar dates (13 states).

3. Discharge standards are allowed to vary more or less continuously in response to environmental variables (stream flow, temperature, etc.), without regard to calendar dates (16 states).

Those states that use fixed seasons (alternative 1) vary widely in the periods selected and sometimes even have more than one season for application to different constituents. Thirty-four have two fixed seasons per year; two have four seasons per year; and two use standards that change with each month.

Thirteen states use seasons that vary from year to year in response to environmental variables (alternative 2). The variables usually used to trigger the "change in seasons" are stream flow or temperature. Seven states use both.

Sixteen states allow standards for some dischargers to vary continuously in response to environmental variables. Three use only this type of standard. The variables used by most to define allowable changes are stream flow or temperature, but some also use Chlorophyl a, fish spawning periods, dissolved oxygen, tidal stages, pH, and total dissolved solids.

DISADVANTAGES AND PROBLEMS ENCOUNTERED

Fifteen states responded to a question soliciting information on difficulties that had been encountered. Those mentioned most frequently included: (a) poor availability of good data on which to base sound judgements about allowable loadings, (b) shortages of staff and capabilities to develop and monitor flexible permits, (c) need for site specific investigations, (d) costs and time requirements to collect required data and evaluate modeling results, (e) additional difficulties in enforcement, and (f) the need for more monitoring.

Table 9 summarizes agency views on potential disadvantages of flexible standards. A substantial number felt that the process of setting flexible standards places greater demands on the agency because it is more complicated. They expressed the view that more personnel are needed to do the additional paperwork, monitoring, and other tasks. On the other hand, analyses of the responses revealed that the states using flexible standards most frequently, based on data in Table 7, described those disadvantages as not important. This suggests that the approach may be a problem principally to those that have not made a firm commitment, gained experience, and created the organizations and methods to permit efficient management of flexible regulatory systems.

PERCEIVED ADVANTAGES

Table 10 tallies the potential benefits as reported by the agencies. Reductions in capital and operating costs are rated by most states as high in importance, followed closely by the reduction in energy consumption and the rational basis underlying flexible standards. The states that classified those four potential benefits as not important principally were those that use flexible standards infrequently, as revealed by responses in Table 7. However, several states that use them infrequently, or not at all, rated those four potential benefits as high in importance, nevertheless.

About 30 states ranked savings of capital and operating costs as very important benefits of flexible standards. However, in response to a question asking specifically about estimated savings during 1982 as a result of using flexible standards, only five states provided data for POTW's and none for other plants.

Two states reported on the results of actual studies of the matter. New Mexico indicated that $220,000 had been saved in operating costs by two POTW's that had been issued flexible standards for ammonia and phosphorus. Georgia indicated that 30 municipalities in that state could save a total of $50 million in capital costs and $4.2 million annually in operating costs, based on a study of some municipal dischargers.

Three states gave estimates of savings. Colorado estimated that 150 POTW's could save $1 million during the year in capital and operating costs by using flexible standards for ammonia only. In South Dakota, the estimated saving was $1 million (of $12 million) in capital costs for adopting flexibility in BOD and ammonia standards. Missouri estimated reductions in operating costs of $150,000 for 30 POTW's issued permits with flexible standards for fecal coliforms.

Of course, it is possible that other states also have studied the economics and merely failed to include the data in their responses to our survey. However, it appears reasonable to conclude that the importance attributed by many states to the cost benefits of flexible standards often is not backed up by actual data, or even sound estimates. This is surprising in view of the importance of the matter and suggests that some regulatory agencies may have been negligent in this aspect of their decision-making processes. Clearly, definitive studies of the economic aspects of flexible standards would be appropriate and should be pursued carefully and thoroughly.

EXPECTED FUTURE USE OF FLEXIBLE STANDARDS

Figure 1 shows the responses to a question about anticipated future policies of the states. Twenty-eight expect to increase their use of flexible standards, including the three states that now do not use them. Nineteen states do not anticipate significant change from their present policies and two expect to use them somewhat less -- one because of public pressures and the other for undefined reasons. No state indicated that it expected to use flexible standards much less than at present.

In response to another question, 34 states indicated that they have received no objection from interest groups to their present policies on flexibility of standards. Four states reported that groups have tried to decrease their use of flexible standards and five have received requests to increase their use. These results suggest that the concept of flexible standards has been well-received.

CONCLUSIONS

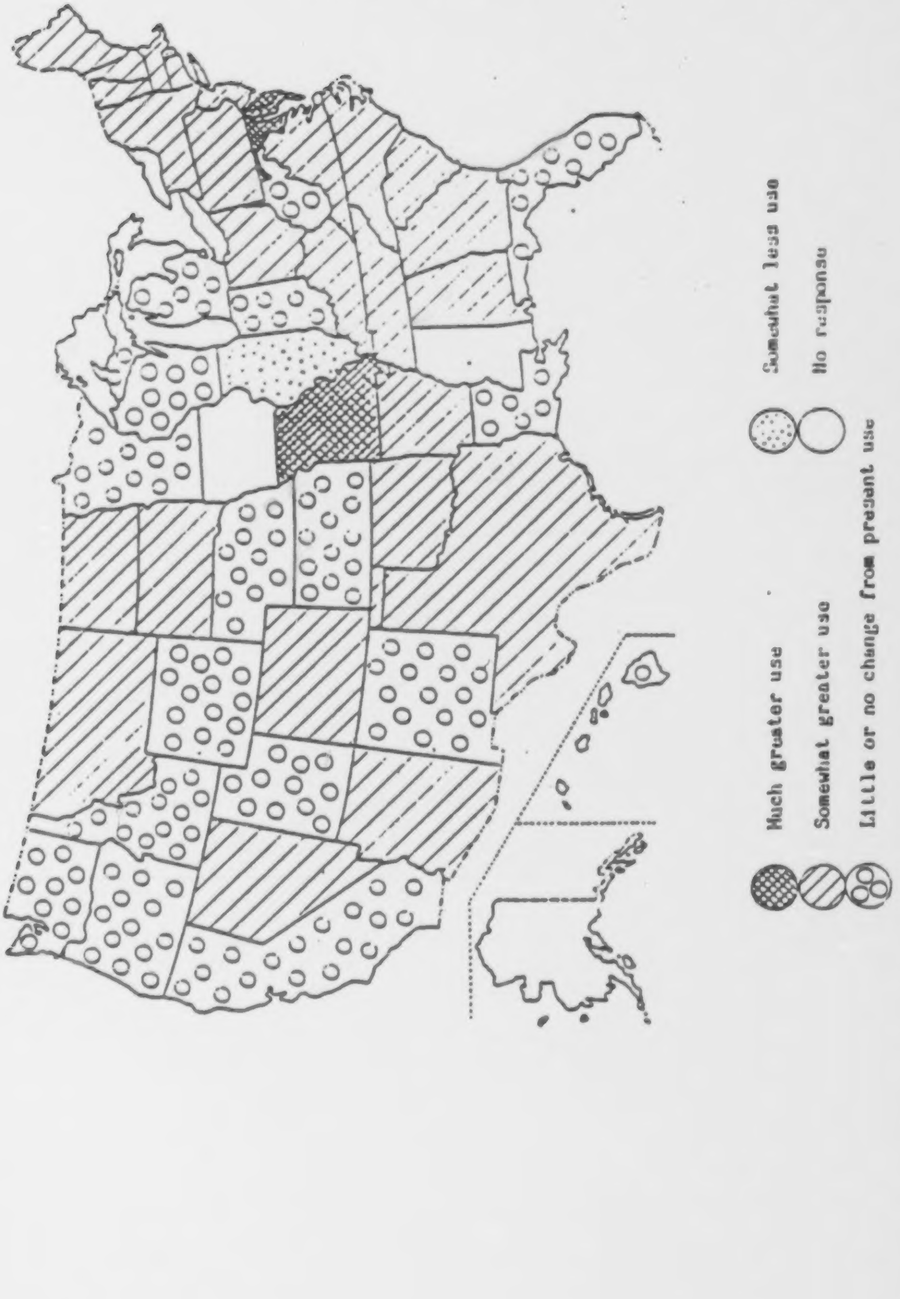
Based on the results of this survey, the following conclusions may be reached about the use of flexible effluent standards in the United States:

1. Forty- five of the forty-eight states responding to the survey now use flexible effluent standards to some degree in their pollution control programs; the remaining two reported in the 1979 survey that they were using this approach, and they probably still do.

2. The uses of flexible standards among the states vary substantially with respect to the number of permits that include them, the types of dischargers to which they are offered, the types of water quality parameters for which they are issued, and how they are implemented in the state programs.

FIGURE 1

EXPECTED FUTURE USE OF FLEXIBLE STANDARDS


Much greater use
Somewhat greater use
Little or no change from present use
Somewhat less use
No response

3. Principal disadvantages of flexible standards, as perceived by some states, include increased complexity of the approach, difficulty and higher cost of implementing it, and need for additional personnel.

4. The states that use flexible standards most frequently discounted those disadvantages, suggesting that the potential problems may be worse in the anticipation than in the realization.

5. The principal advantages perceived in use of flexible standards include reductions in capital costs, operating costs, and energy consumption.

6. Although cost reductions were viewed as important advantages, few states appear to have solid information on the savings that accrue from using flexible effluent standards in their programs.

7. The trend observed in the 1979 survey towards increased use of flexible standards continues.

8. Most of the states expect to increase use of flexible standards in the future.

9. Only three states reported that they do not use flexible standards at all and those indicated that they anticipate initiating their use in the future.

AUTHORS

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REFERENCES

1. Lamb, J.C., Shiffman, M.A., and Duletsky, S.A., "A Survey of the Use of Seasonal Effluent Standards."; Presented at the Las Vegas Meeting of the Water Pollution Control Federation (September 30, 1980).

2. Lamb, J.C., "Conflict Between Energy Conservation and Water Pollution Control Standards." Journal Water Pollution Control Federation, Volume 52, Pages 656-660 (1980).

3. Lamb, J.C., "Assessment of the Effectiveness of Seasonal Standards." Journal North Carolina Section American Water Works Association and North Carolina Water Pollution Control Association, Pages 41-46 (1983).

4. Hargett, D. and Seagraves, J.C., "Benefits and Costs of Seasonal Effluent Permits in North Carolina." Report No. 135, North Carolina Water Resources Research Institute, Raleigh, NC (January, 1979).

5. Reheis, H.F., Dozier, J.C., Word, D.M. and Holland, J.R., "Treatment Cost Savings Through Monthly Variable Effluent Limits." Journal Water Pollution Control Federation, Volume 54, Pages 1224-1230 (1982).

6. Hull, D.B., "A Survey of the Use of Flexible Effluent Standards by State Water Quality Management Agencies." A Report Submitted in Partial Fulfillment of the MSPH Degree, Department of Environmental Sciences and Engineering, School of Public Health, The University of North Carolina at Chapel Hill (1983).

Exh. C

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING AND RECREATING, AND CREATING RULES

IN THE MATTER of repealing and recreating s. NR 212.11, and creating ss. NR 212.115 and NR 212.40(8) of the Wisconsin Administrative Code pertaining to water quality based allocations of pollutant discharges to waters of the state		WQ-1-85

Analysis Prepared by Department of Natural Resources

Chapter NR 212, Wis. Adm. Code, allocates to municipal and industrial point source dischargers amounts of the class of pollutants known as BOD_5 allowable in certain streams in the state. The principal changes involve procedures for temporary and long term reassignments of allocations between dischargers. The revisions to ss. NR 212.11 and NR 212.40 address reallocation of pollutant loadings from an entity no longer discharging to one or more existing dischargers, or resulting from rerouting of waste streams between municipal and industrial wastewater treatment plants. Section NR 212.115 provides for short term transfers of allocations between existing dischargers without need for any change in the actual discharges.

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 227.011 and 227.014(2)(a), Stats., the State of Wisconsin Natural Resources Board hereby repeals and recreates, and creates rules interpreting ss. 147.04(5), 147.05 and 147.25, Stats., as follows:

SECTION 1. NR 212.11 is repealed and recreated to read:

NR 212.11 MODIFICATIONS AND TEMPORARY REALLOCATION OF POINT SOURCE ALLOCATIONS. (1) When a discharger to a publicly-owned point source covered by this chapter applies to receive a separate WPDES permit or when a person with a WPDES permit applies to terminate its direct discharge in order to contribute to a publicly-owned point source covered by this chapter, permit modification procedures contained in ss. 147.025 and 147.03(2), Stats., shall apply. [redacted]

(2) Procedures for temporary reallocation for individual stream segments are identified in ss. NR 212.40 through 212.70. [redacted]ns:

(a) Reallocations approved by the department shall be for at least one calendar year and shall expire at the end of the affected discharger's WPDES permit term;

(b) Reallocations shall account for differences in waste characteristics and location of discharge as determined by the department; and

(c) Reallocations may not affect baseline loads in affected stream segments but may result in an adjustment to total maximum daily loads identified in ss. NR 212.40 through 212.70.

SECTION 2. NR 212.115 is created to read:

NR 212.115 TRANSFERABLE WASTELOAD ALLOCATION. (1) Transfers of wasteload allocations between point source discharges may be allowed through the permit issuance or modification process under the following conditions:

(a) The discharger applying to receive a transfer secures a legally binding agreement approved by the department, that the WPDES permit allocations for one or more existing dischargers shall be reduced by an amount sufficient to prevent the total maximum load under ss. NR 212.40 through 212.70 from being exceeded;

(b) The department shall consider the differences in waste characteristics and location of the affected point sources to determine amounts by which the existing point source allocations are reduced;

(c) Transfer agreements approved by the department shall be for at least one wasteload allocation season and may not extend beyond the term of the dischargers' permits.

(2) A transfer shall be nullified if the WPDES permit for any discharger which is a party to the transfer expires or is revoked due to the termination of the discharge or if the categorical effluent limitations of a transferring discharger are reduced to an amount less than that which has been transferred. Any nullification of a transfer shall be through the permit issuance or modification process.

SECTION 3. NR 212.40(8) is created to read:

NR 212.40(8) Reallocation of available wasteload allocations.

(a) Wasteload allocations may be reallocated under par. (b) when a wasteload alloca~~ted permit expire~~s, is ~~revoked~~ or surrend~~ered~~ for the following purposes:

1. Provide for the wasteload needed due to the reactivation of a facility that had closed and made the wasteload available.

2. Provide the wasteload for new production increases by existing dischargers.

3. Provide the wasteload for production by a new discharger.

~~4. [illegible] dischargers [illegible] their existing allocations [illegible] the appropriate stream [illegible] effluent limitation levels.~~

(b) The following procedures shall be used to reallocate available wasteloads:

1. Upon [redacted] of an available wasteload allocation pursuant to par. (a), [redacted]

2. A 6 month period shall be provided for [redacted] in available wasteload allocations.

3. Within 60 days of the end of the 6 month period the designated management agency shall conduct a public meeting regarding the proposed reallocation.

4. The designated management agency shall recommend a reallocation proposed to the department.

5. The department shall notify the designated management agency of acceptance or rejection of the recommendation within 6 months.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on

The rules contained herein shall take effect as provided in s. 227.026(1) (intro), Stats.

Dated at Madison, Wisconsin ______________________

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By ______________________
Carroll D. Besadny, Secretary

(SEAL)
4742J

Exh. D

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PUBLIC NOTICE OF INTENT TO MODIFY A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT

Public Notice Number: 821-3430C-02; Notice Issued: MAR 21 1985 ; Permit Number: WI-0000990-3; Permit Issued On: June 30, 1982.

Permittee: **Appleton Papers, Inc., Locks Mill, Prospect Street, Combined Locks, WI 54113.**

Facility Where Discharge Occurs: **Appleton Papers, Inc., Locks Mill, Prospect Street, Combined Locks, WI 54113.**

Receiving Water: **The Lower Fox River at river mile 24.5 in Outagamie County.**

Activities or Operations Resulting in Discharge: Appleton Papers, Inc. manufactures carbonless copy paper, telephone directory paper and chemi-mechanical pulp for internal consumption and open market sales. This activity results in an average discharge of 5.2 million gallons per day of treated process wastewaters via outfall 010. Process wastewaters are treated in a biological treatment system which includes screening, primary clarification, aeration, secondary clarification and sludge dewatering. Two emergency outfalls, outfall 009 for emergency bypass of secondary treatment facilities and outfall 011 for emergency discharge from the mill basement, also may be used. Noncontact cooling water is discharged via outfall 007 at an average of 1.8 million gallons per day.

Person Requesting Modification: Mr. Dennis Hultgren, Corp. Energy & Environmental Control Mgr., Appleton Papers, Inc..

Requested Modification: To achieve and maintain a water quality standard of 5 mg/l (ppm) dissolved oxygen in the Lower Fox River, Appleton Papers' WPDES discharge permit contains wasteload allocated effluent limitations for 5-day biochemical oxygen demand (BOD_5). Wasteload allocated effluent limitations are based on the assimilative capacity of the Lower Fox River for BOD_5. Due to the closing in 1982 of Consolidated Papers, Inc., Appleton, additional assimilative capacity is available to the remaining dischargers. Appleton Papers, Inc. has requested that their wasteload allocated water quality related effluent limitations be modified (made less stringent) by the redistribution of this available assimilative capacity. The adjusted wasteload allocated water quality related effluent limitations contained in the proposed permit modification represent the redistribution of the assimilative capacity while still maintaining the water quality standard for dissolved oxygen.

Reasons for Requested Modification: The proposed modification of wasteload allocated water quality related effluent limitations will result in fewer occasions when Appleton Papers, Inc. must reduce their discharge of BOD_5 below the categorical effluent limitations contained in their WPDES discharge permit. The proposed permit modification will not alter Appleton Papers' categorical effluent limitations which establish the maximum amount of BOD_5 which may be discharged.

Prior to the reallocation of assimilative capacity for BOD_5, Wisconsin Administrative Code Chapter NR 212, "Wasteload Allocated Water Quality Related Effluent Limitations" must be modified. The proposed permit modification will not be issued until the revised rule is published in the Wisconsin Administrative Register.

Request for Modification Received On: February 11, 1985.

The above named person(s) requested modification of the above named WPDES permit to discharge into the above named receiving water. The Department has tentatively determined that this WPDES permit should be modified in accordance with the change(s) listed under "Requested Modification."

Persons wishing to comment on or object to the proposed permit, or to request a public hearing, are invited to do so in writing to the Department of Natural Resources, WPDES Permits Section, 101 S. Webster Street, P.O. Box 7921, Madison, WI 53707-7921. All comments or suggestions received from members of the public and interested government agencies no later than 30 days from the date of issue of this public notice will be used along with other information on file in making a final decision regarding the permit modification. Where designated as a reviewable surface water discharge permit, the U.S. Environmental Protection Agency is allowed up to 90 days to submit comments or objections regarding this permit determination.

A public informational hearing may be held if response to this notice indicates significant public interest pursuant to Section 147.13, Wisconsin Statutes, or if a petition requesting a hearing is received from 5 or more persons. Requests for a public informational hearing should state the following: the name and address of the person(s) requesting the hearing; the interest on the proposed modification (of the person(s) requesting the hearing); the reasons for the request; and the issues proposed to be considered at the hearing.

Information on file for this permit may be inspected and copied at the address above, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit may also be obtained by calling (608) 266-3221 or by writing to the Department. Reasonable costs will be charged for copies of information in the file other than the public notice and fact sheet.

1155d

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PUBLIC NOTICE OF INTENT TO MODIFY A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT

Public Notice Number: 821-34500-05; Notice Issued: MAR 21 1985 ; Permit Number: WI-0000698-3;
Permit Issued On: June 30, 1982.

Permittee: *"Midtec Paper Corporation, North Main Street, Kimberly, WI 54136."*

Facility Where Discharge Occurs: *"Midtec Paper Corporation, North Main Street, Kimberly, WI 54136."*

Receiving Water: *"The Lower Fox River at mile 27.8 in Outagamie County."*

Activities or Operations Resulting in Discharge: The permittee produces coated fine publication paper from bleached groundwood pulp processed on-site and purchased Kraft pulp. Outfall 001 discharges 10.1 million gallons per day of treated process wastewater. This wastewater is treated by a biological process that includes an activated sludge system in a jet aeration channel, secondary clarification, sludge thickening and wet air oxidation of the sludge. Outfall 015 discharges an average of 1.3 million gallons per day of wastewater used to sluice ash from boilers. This wastewater is treated in a settling pond prior to discharge. Outfall 022 discharges an average of 14.5 million gallons per day of noncontact cooling water from a turbine condenser and various other sources.

Person Requesting Modification: Mr. Herb A. Hertz, Technical Director, Midtec Paper Corporation.

Requested Modification: To achieve and maintain a water quality standard of 5 mg/l (ppm) dissolved oxygen in the Lower Fox River, Midtec Paper Corporation's WPDES discharge permit contains wasteload allocated effluent limitations for 5-day biochemical oxygen demand (BOD_5). Wasteload allocated effluent limitations are based on the assimilative capacity of the Lower Fox River for BOD_5. Due to the closing in 1982 of Consolidated Papers, Inc., Appleton, additional assimilative capacity is available to the remaining dischargers. Midtec Paper Corporation has requested that their wasteload allocated water quality related effluent limitations be modified (made less stringent) by the redistribution of this available assimilative capacity. The adjusted wasteload allocated water quality related effluent limitations contained in the proposed permit modification represent the redistribution of the assimilative capacity while still maintaining the water quality standard for dissolved oxygen.

Reasons for Requested Modification: The proposed modification of wasteload allocated water quality related effluent limitations will result in fewer occasions when Midtec Paper Corporation must reduce their discharge of BOD_5 below the categorical effluent limitations contained in their WPDES discharge permit. The proposed permit modification will not alter Midtec Paper Corporation's categorical effluent limitations which establish the maximum amount of BOD_5 which may be discharged.

Prior to the reallocation of assimilative capacity for BOD_5, Wisconsin Administrative Code Chapter NR 212, "Wasteload Allocated Water Quality Related Effluent Limitations" must be modified. The proposed permit modification will not be issued until the revised rule is published in the Wisconsin Administrative Register.

Request for Modification Received On: February 11, 1985.

The above named person(s) requested modification of the above named WPDES permit to discharge into the above named receiving water. The Department has tentatively determined that this WPDES permit should be modified in accordance with the change(s) listed under "Requested Modification."

Persons wishing to comment on or object to the proposed permit, or to request a public hearing, are invited to do so in writing to the Department of Natural Resources, WPDES Permits Section, 101 S. Webster Street, P.O. Box 7921, Madison, WI 53707-7921. All comments or suggestions received from members of the public and interested government agencies no later than 30 days from the date of issue of this public notice will be used along with other information on file in making a final decision regarding the permit modification. Where designated as a reviewable surface water discharge permit, the U.S. Environmental Protection Agency is allowed up to 90 days to submit comments or objections regarding this permit determination.

A public informational hearing may be held if response to this notice indicates significant public interest pursuant to Section 147.13, Wisconsin Statutes, or if a petition requesting a hearing is received from 5 or more persons. Requests for a public informational hearing should state the following: the name and address of the person(s) requesting the hearing; the interest on the proposed modification (of the person(s) requesting the hearing); the reasons for the request; and the issues proposed to be considered at the hearing.

Information on file for this permit may be inspected and copied at the address above, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit may also be obtained by calling (608) 266-3221 or by writing to the Department. Reasonable costs will be charged for copies of information in the file other than the public notice and fact sheet.

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STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PUBLIC NOTICE OF INTENT TO MODIFY A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT

Public Notice Number: '821-3452C-02; Notice Issued: MAR 21 1985 ; Permit Number: WI-0000591-3; Permit Issued On: June 30, 1982.

Permittee: **Kerwin Paper Company, Division of Americon, P.O. Box 815, Appleton, WI 54912.**

Facility Where Discharge Occurs: **Kerwin Paper Company, 800 South Lawe Street, Appleton, WI 54912.**

Receiving Water: **The Lower Fox River at mile 33.3 in Outagamie County.**

Activities or Operations Resulting in Discharge: The permittee manufactures fine, school, business, and specialty papers from purchased pulp and deinked waste paper. This activity results in the average discharge of 1.75 million gallons per day of low strength process wastewater to the Fox River. This water is pH adjusted prior to discharge and consists of boiler blowdown, cooling water, and saveall clear white water. All high strength wastewater is discharged to the City of Appleton publically owned treatment works.

Person Requesting Modification: Mr. Brian Hill, V.P. Engineering and Technical Services, Kerwin Paper Company.

Requested Modification: To achieve and maintain a water quality standard of 5 mg/l (ppm) dissolved oxygen in the Lower Fox River, Kerwin Paper Company's WPDES discharge permit contains ~~wasteload~~ allocated effluent limitations for 5-day biochemical oxygen demand (BOD_5). Wasteload allocated effluent limitations are based on the assimilative capacity of the Lower Fox River for BOD_5. Due to the closing in 1982 of Consolidated Papers, Inc., Appleton, additional assimilative capacity is available to the remaining dischargers. Kerwin Paper Company has requested that their wasteload allocated water quality related effluent limitations be modified (made less stringent) by the redistribution of this available assimilative capacity. The adjusted wasteload allocated water quality related effluent limitations contained in the proposed permit modification represent the redistribution of the assimilative capacity while still maintaining the water quality standard for dissolved oxygen.

Reasons for Requested Modification: The proposed modification of wasteload allocated water quality related effluent limitations will result in fewer occasions when Kerwin Paper Company must reduce their discharge of BOD_5 below the categorical effluent limitations contained in their WPDES discharge permit. The proposed permit modification will not alter Kerwin Paper Company's categorical effluent limitations which establish the maximum amount of BOD_5 which may be discharged.

Prior to the reallocation of assimilative capacity for BOD_5, Wisconsin Administrative Code Chapter NR 212, "Wasteload Allocated Water Quality Related Effluent Limitations" must be modified. The proposed permit modification will not be issued until the revised rule is published in the Wisconsin Administrative Register.

Request for Modification Received On: February 11, 1985.

The above named person(s) requested modification of the above named WPDES permit to discharge into the above named receiving water. The Department has tentatively determined that this WPDES permit should be modified in accordance with the change(s) listed under "Requested Modification."

Persons wishing to comment on or object to the proposed permit, or to request a public hearing, are invited to do so in writing to the Department of Natural Resources, WPDES Permits Section, 101 S. Webster Street, P.O. Box 7921, Madison, WI 53707-7921. All comments or suggestions received from members of the public and interested government agencies no later than 30 days from the date of issue of this public notice will be used along with other information on file in making a final decision regarding the permit modification. Where designated as a reviewable surface water discharge permit, the U.S. Environmental Protection Agency is allowed up to 90 days to submit comments or objections regarding this permit determination.

A public informational hearing may be held if response to this notice indicates significant public interest pursuant to Section 147.13, Wisconsin Statutes, or if a petition requesting a hearing is received from 5 or more persons. Requests for a public informational hearing should state the following: the name and address of the person(s) requesting the hearing; the interest on the proposed modification (of the person(s) requesting the hearing); the reasons for the request; and the issues proposed to be considered at the hearing.

Information on file for this permit may be inspected and copied at the address above, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit may also be obtained by calling (608) 266-3221 or by writing to the Department. Reasonable costs will be charged for copies of information in the file other than the public notice and fact sheet.

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STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PUBLIC NOTICE OF INTENT TO MODIFY A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT

Public Notice Number: 821-3439C-02; Notice Issued: MAR 2 1 1985 ; Permit Number: WI-0000825-3; Permit Issued On: June 30, 1982.

Permittee: ""Thilmany Pulp and Paper Company, Division of Hammermill Paper Co., P.O. Box 600, Kaukauna, WI 54130.""

Facility Where Discharge Occurs: ""Thilmany Pulp and Paper Company, Division of Hammermill Paper Co., P.O. Box 600, Kaukauna, WI 54130.""

Receiving Water: ""Cluster II of the Fox River in the Lower Fox River Drainage Basin.""

Activities or Operations Resulting in Discharge: The facility is engaged in the manufacture of unbleached Kraft pulp and industrial grade specialty papers. These activities result in a discharge of 21.1 million gallons per day of treated process wastewaters as well as eight non-process wastewater discharges.

Person Requesting Modification: Mr. A. H. Martin, Manager Technical Services, Thilmany Pulp and Paper Co..

Requested Modification: To achieve and maintain a water quality standard of 5 mg/l (ppm) dissolved oxygen in the Lower Fox River, Thilmany Pulp and Paper Company's WPDES discharge permit contains wasteload allocated effluent limitations for 5-day biochemical oxygen demand (BOD_5). Wasteload allocated effluent limitations are based on the assimilative capacity of the Lower Fox River for BOD_5. Due to the closing in 1982 of Consolidated Papers, Inc., Appleton, additional assimilative capacity is available to the remaining dischargers. Thilmany Pulp and Paper Company has requested that their wasteload allocated water quality related effluent limitations be modified (made less stringent) by the redistribution of this available assimilative capacity. The adjusted wasteload allocated water quality related effluent limitations contained in the proposed permit modification represent the redistribution of the assimilative capacity while still maintaining the water quality standard for dissolved oxygen.

Reasons for Requested Modification: The proposed modification of wasteload allocated water quality related effluent limitations will result in fewer occasions when Thilmany Pulp and Paper Company must reduce their discharge of BOD_5 below the categorical effluent limitations contained in their WPDES discharge permit. The proposed permit modification will not alter Thilmany Pulp and Paper Company's categorical effluent limitations which establish the maximum amount of BOD_5 which may be discharged.

Prior to the reallocation of assimilative capacity for BOD_5, Wisconsin Administrative Code Chapter NR 212, "Wasteload Allocated Water Quality Related Effluent Limitations" must be modified. The proposed permit modification will not be issued until the revised rule is published in the Wisconsin Administrative Register.

Request for Modification Received On: February 11, 1985.

The above named person(s) requested modification of the above named WPDES permit to discharge into the above named receiving water. The Department has tentatively determined that this WPDES permit should be modified in accordance with the change(s) listed under "Requested Modification."

Persons wishing to comment on or object to the proposed permit, or to request a public hearing, are invited to do so in writing to the Department of Natural Resources, WPDES Permits Section, 101 S. Webster Street, P.O. Box 7921, Madison, WI 53707-7921. All comments or suggestions received from members of the public and interested government agencies no later than 30 days from the date of issue of this public notice will be used along with other information on file in making a final decision regarding the permit modification. Where designated as a reviewable surface water discharge permit, the U.S. Environmental Protection Agency is allowed up to 90 days to submit comments or objections regarding this permit determination.

A public informational hearing may be held if response to this notice indicates significant public interest pursuant to Section 147.13, Wisconsin Statutes, or if a petition requesting a hearing is received from 5 or more persons. Requests for a public informational hearing should state the following: the name and address of the person(s) requesting the hearing; the interest on the proposed modification (of the person(s) requesting the hearing); the reasons for the request; and the issues proposed to be considered at the hearing.

Information on file for this permit may be inspected and copied at the address above, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit may also be obtained by calling (608) 266-3221 or by writing to the Department. Reasonable costs will be charged for copies of information in the file other than the public notice and fact sheet.

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RECE

Exh. E

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD

CREATING RULES

. . . .
IN THE MATTER of creating s. NR 212.115 .
of the Wisconsin Administrative Code .
pertaining to water quality based .
allocations of pollutant discharges to .
waters of the state .
. . . .

[redacted]

Analysis Prepared by the Department of Natural Resources

Chapter NR 212, Wis. Adm. Code, allocates to municipal and industrial point source dischargers amounts of the class of pollutants known as BOD_5 allowable in certain streams in the state. Section NR 212.115 provides for short term transfers of allocations between existing dischargers without need for any change in the actual baseline load.

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 227.011 and 227.014(2)(a), Stats., the State of Wisconsin Natural Resources Board hereby creates rules interpreting ss. 147.04(5), 147.05 and 147.25, Stats., as follows:

SECTION 2. NR 212.115 is created to read:

NR 212.115 TRANSFERABLE WASTELOAD ALLOCATION. (1) Transfers of wasteload allocations between point source dischargers may be allowed through the permit issuance or modification process under the following conditions:

(a) The discharger applying to receive a transfer secures a legally binding agreement approved by the department, that the WPDES permit allocations for one or more existing dischargers shall be reduced by an amount sufficient to prevent the total maximum load under ss. NR 212.40 through 212.70 from being exceeded;

(b) The department shall consider the differences in waste characteristics and location of the affected point sources to determine amounts by which the existing point source allocations are reduced; and

(c) Transfer agreements approved by the department shall be for at least one wasteload allocation season and may not extend beyond the term of the seller's dischargers' permits.

(2) Prior to department approval of a transfer, all parties to the transfer shall waive all rights under s. 227.14, Stats., to retain any transfer beyond the expiration date of the WPDES permit of the dischargers applying to receive a transfer. The waiver should be effectuated through incorporation into both the legally binding agreement in sub. (1)(a) and the WPDES permit of all parties to the agreement.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on

The rules contained herein shall take effect as provided in s. 227.026(1) (intro.), Stats.

Dated at Madison, Wisconsin ______________________

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By ______________________
Carroll D. Besadny, Secretary

(SEAL)
5168J

Exh. F

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

AL RESOURCES COMMISSION
MAS J. ANDERSON
E. R. CAROLLO
MARLENE J. FLUHARTY
STEPHEN F. MONSMA
O. STEWART MYERS
RAYMOND POUPORE
HARRY H. WHITELEY

February 15, 1985

Mr. Mark Van Putten
National Wildlife Federation
Great Lakes Natural Resource Center
802 Monroe
Ann Arbor, Michigan 48104

Dear Mr. Van Putten:

As you requested in your January 29, 1985 letter, I have enclosed a copy of the May 31, 1984 letter from Allied Paper. Also enclosed are copies of a memo and a letter dated September 4, 1984 from Mr. Les Thomas of my staff regarding the Allied Paper permit.

Regarding the September 6, 1984 meeting between representatives of Allied Paper, U.S. EPA-Region V and DNR, we have no formal notes or minutes. However, as I recently discussed with you over the telephone, there was some confusion at the meeting as to exactly what EPA's position was regarding "antibacksliding". I am also enclosing a copy of our latest letter requesting EPA's response on the antibacksliding question. We will send you a copy of EPA's response when we receive it.

Very truly yours,

Wm. E. McCracken

William E. McCracken, P.E.
Chief, Permits Section
Surface Water Quality Division
Phone: (517) 373-8088

enclosures

SCM ALLIED PAPER INCORPORATED
SUBSIDIARY OF SCM CORPORATION

PAPER MILLS DIVISION KALAMAZOO, MICHIGAN 49003 (616) 345-7131

May 31, 1984

Mr. Lyell Thomas
Water Quality Specialist
Water Quality Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48926

Dear Mr. Thomas:

Subject: Winter BOD and Year-round TSS Discharge Limits
NPDES Permit Reissuance
Allied Paper, Inc.
Bryant Mill

Allied Paper, Inc. strenuously objects to the modifications made by the Michigan Department Natural Resources in our draft NPDES Permit No. MI 0000779, specifically the reduction in winter BOD discharge limits and year-round TSS limits back to the levels in our existing permit. This revision reduces our allowed winter BOD discharge from an average of 2,217 lb/day to a maximum of 770 lb/day and has a similar impact on TSS discharge limits.

In your letter to U. G. Stoeffler dated May 2, 1984, you indicated that the reason for this change is that:

> "The Environmental Protection Agency, Region V has brought to (the DNR's) attention that the April 1, 1983, 40 CFR Part 122.44 (1) regulation needs to be applied when reissuing permits. This ruling is designed to prevent anti-backsliding (relaxation) of previous water quality based permit limits."

Before citing our specific objections to the above reasoning, it is appropriate to reference the clause in 40 CFR122 which provides DNR with the legal mechanism to establish water quality based limits.

> *"122.44 Establishing limitations, standards, and other permit conditions ......*
>
> *In addition to the conditions established under 122.43 (a), each NPDES permit shall include conditions meeting the following requirements when applicable. (d) Water quality standards and state requirements: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318, and 405 of CWA necessary to:*
>
> *(1) Achieve water quality standards established under section 303 of CWA;........*

This regulation explicitly gives the DNR the legal right to establish effluent limitations more stringent than promulgated standards to the extent necessary to achieve the established water quality standards in a receiving water. For example, the DNR has the right to set effluent limits necessary to achieve the established water quality standard for DO in the Kalamazoo River near Allied's mill of 4 mg/L min. and 5 mg/L average.

When Allied's original permit was issued in 1977, the effluent limitations were established via a river modelling study. The effluent limitations were believed necessary to achieve, but in fact were not necessary to achieve the water quality standards established for the Kalamazoo River.

Recent permits were issued in Wisconsin (and approved by EPA Revion V) for a number of industries and municipalities along the Fox and Wisconsin rivers (two water quality limited rivers). These permits incorporate flow and temperature variable provisions which allow the permittees to vary their discharges based on the actual condition of the receiving waters. These permits represent clear evidence that EPA accepts the concept that dischargers may use the assimilative capacity of a receiving water up to the limits imposed by the established water quality standards.

With this background, we will now list our objections to the revision to our draft permit.

When EPA Region V notified the MDNR that the proposed revision to the permit (i.e., increasing winter BOD discharge limits and year-round TSS limits to BPT levels) was considered "backsliding" and would not be allowed, they did not consider the provisions of 40 CFR122 dealing with permit modifications. 40 CFR 122.44(1), by its terms, does not apply where circumstances have changed "since the time the permit was issued" so as to "constitute cause for permit modification — under 122.62." Pertinent paragraphs from the regulations governing permit modifications are:

122.62 Modification or revocation and reissuance of permits (applicable to state programs, see 123.25).

When the Director receives any information....he or she may determine whether or not one or more of the causes listed in paragraphs (a) and (b) of this section for modification or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary......If a permit modification satisfies the criteria in 122.63 for "minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in Part 124 (or procedures of an approved state program) followed.

(a)Causes for modification. The following are causes for modification but not revocation and reissuance of permits except when the permittee requests or agrees.

(1)Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2)Information. The Director has received new information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance. For NPDES general permits (122.28) this cause includes any information indicating that cumulative effects on the environment are unacceptable.

(3)New regulations. The standards or regulations on which the permit was passed have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.......

**(6)To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions......"*
**Proposed revision by EPA*

During preliminary meetings with the DNR regarding the limits in our new permit, a number of issues were discussed that relate to the above provisions. EPA's objection to the modification to Allied's permit may reflect the fact that they were not aware of these discussions.

40 CFR 122.62 (a) (1) ALTERATIONS

At the time the original permit was issued, the rated production capacity of Allied's mill was 240.1 tons/day. The current production capacity is 260.8 tons/day. This increase in rated capacity should result in an increase in our permitted discharge levels.

40 CFR 122.62 (a) (2) INFORMATION

At the time Allied's original permit was issued the stipulated summer and winter discharge limits for BOD_5 were believed necessary to achieve state water quality standards for DO in the affected reach of the Kalamazoo River (5 mg/L average, 4mg/L minimum). The limits were based on output from a relatively crude model, calibrated with water quality conditions in the Kalamazoo River in 1976. Since the date of modelling, organic loads to the river have been reduced substantially and will be reduced even further when the Kalamazoo POTW installs an AWT plant next year.

On October 11-12, 1982, the DNR conducted an "intensive water quality survey of the Kalamazoo River between Kalamazoo and Allegan." During the study, flow in the Kalamazoo River was roughly two times the 7Q10 flow. (For the months of November through April, long-term flow records indicate that flow in the Kalamazoo River exceeds the October 11, 12, 1982, flow rate approximately 75 percent of the time.) All water quality standards for the river were met during the survey. The lowest measured Dissolved Oxygen concentration in the river was 4.8 mg/L at one location in the Kalamazoo River downstream from Portage Creek and upstream from Plainwell. Measured DO's downstream from Otsego all exceeded 8 mg/L. The data from the survey, therefore, would indicate that the critical stretch of the river under the conditions at the time was between Kalamazoo and Plainwell.

Since the three dischargers in Kalamazoo have the greatest impact on the critical stretch of the river, it is appropriate to compare their October 1982, BOD discharges with winter discharge limits proposed in the DNR's latest revised draft permits:

Discharger	Measured Effluent BOD Oct. 11,12, 1982	Proposed Winter BOD Discharge Limit
Allied Paper	317 lb/d	770 lb/d
Kalamazoo WWTP	23,464 lb/d	7,950 lb/d* (30 mg/L)
James River Corp.	288 lb/d	1,350 lb/d
TOTAL	24,069 lb/d	10,070 lb/d

*At the same flow rate as October 11-12, 1982.

This information indicates that at discharge levels equal to roughly 2.4 times the proposed (and existing) permit limits, water quality more than met the water quality standards set for the Kalamazoo River.

This new information establishes that the model used by the DNR in 1976 was too conservative and that the winter limits imposed on the above dischargers are unnecessarily low. When the Kalamazoo AWT plant becomes operational next year, water quality in the river should further improve.

40 CFR 122.62 (a) (3) NEW REGULATIONS

Recent permits issued in Wisconsin and approved by EPA Region V allow both industrial and municipal dischargers to take full benefit of the assimilative capacity of receiving waters up to the limits imposed by water quality standards (see earlier discussion). These types of permits were not in use at the time Allied's original permit was issued. EPA's approval of the permits in Wisconsin indicates a revision to their approach to water quality based permit limits and points to the fact that EPA approves full use of assimilative capacity.

40 CFR 122.62 (a) (16) TO CORRECT TECHNICAL MISTAKES (Proposed modification by EPA)....

EPA has proposed a provision to modify NPDES permits to correct technical mistakes made is setting effluent limits. We believe that three technical mistakes were made in setting Allied's original limits.

a) (see earlier discussion). The model used by DNR to set winter discharge limits apparently predicted DO concentrations lower than actual measured field conditions at current waste loads. This modelling error resulted in effluent limits more stringent than actually necessary to achieve water quality standards during winter months.

b) The limits imposed on Allied's BOD discharge, to the best of our knowledge, are based on manual computations made by DNR some time prior to 1976. These manual computations were completed to predict the allowed discharge necessary to protect Portage Creek, NOT the Kalamazoo River. When the DNR modelled the Kalamazoo River in 1976, the manually computed limits were simply inserted as a "given" for Allied's discharge. No attempt was made by DNR to determine what limit was necessary to meet water quality standards in the Kalamazoo River.

Allied personnel have routinely measured DO's in Portage Creek over the past several years and have found that the DO in the creek always exceeds 6 mg/L. In our preliminary meeting with DNR, we were informed that the water quality in the Kalamazoo River is the limiting factor in setting Allied's permit limits. In the meeting, no rationale was available to justify the current limits.

c) During the winter months, DNR proposes to permit the City of Kalamazoo to discharge BOD at a concentration of 30 mg/L. This concentration is the equivalent of BPT levels for a municipal treatment plant. The industrial dischargers, however, have winter limits set at a small fraction of BPT levels. This arbitrary inconsistency appears discriminatory to the industrial dischargers.

40 CFR122.44(1) was not intended to allow the perpetuation of errors made in establishing the original limits in Allied's permit. We believe that there is strong evidence indicating that the limits in the original permit were arbitrarily conceived and unreasonably low with respect to limits actually necessary to achieve water quality standards in the Kalamazoo River.

We respectfully request that the winter BOD limit and the year-round TSS limits in our draft permit be changed back to the limits included on the draft submitted for public comment on February 24, 1984 (i.e., 2217 lb BOD/d average and 4277 lb BOD/d max). We believe that if limits more stringent than BPT are to be applied to our discharge, they should be supported with modelling results based on a state-of-the-art field calibrated model.

As we discussed several times, we also believe that our summer BOD limit may also be unnecessarily restrictive after the Kalamazoo AWT plant becomes operational. We do not think it is appropriate to address the summer limits until water quality data is available after startup of the AWT plant. Our primary concern at this time is to have our winter BOD and year-round TSS limits raised to levels commensurate with the water quality limits in the Kalamazoo River.

Your letter to U. G. Stoeffler dated May 4, 1984 included a memorandum from Bill Shaw to Lyell Thomas dated May 2, 1984. Mr. Shaw indicated that a permit modification (i.e., higher BOD and TSS discharge limits) could be made if:

> "*1....existing water quality is* __*better*__ *than the water quality standards.....*

> *2....circumstances on which the previous permit was based have materially and substantially changed.....*
>
> *3....40 CFR 125.3 as it is defined for section 304 (b) (3) of the Clean Water Act for technology based BPJ determinations. 'Identify control measures and practices. available to eliminate the discharge of pollutants...taking into account the cost of achieving such elimination....'*
>
> *Inherent in the Clean Water Act is the necessity for a cost/benefit analysis. What Allied Paper Company is only considering, is the cost they are or will incur. This does not address previously incurred costs by the City of Kalamazoo, State of Michigan, and the federal governmental for providing municipal treatment, design and planning in the past. It is my opinion, these costs must be mitigated prior to considering a relocation of discharge."*

This letter addresses points 1 and 2. We are mystified by Mr. Shaw's third point. The portion of the Federal Register cited by Mr. Shaw governs technology-based effluent limits. Allied's technology-based effluent limitations are:

Parameter	30-Day Average	Daily Maximum
BOD_5	2,217 lb/d	4,277 lb/d
TSS	3,077 lb/d	5,738 lb/d

What we are dealing with here are water quality based effluent limitations. We do not believe that the portion of the code cited is applicable. In any event, since 1977, Allied has complied with the terms of our NPDES permit. In doing so we have incurred significant costs in establishing in-mill water re-use and recycle systems, constructing and operating our wastewater treatment system, and paying user fees for our discharge to the Kalamazoo POTW. Allied is paying our fair share of the cost of installing Kalamazoo's new AWT plant. We need further guidance from you to determine what is necessary to respond to Mr. Shaw's third point.

We would like to discuss these issues at your earliest convenience. We will call you to set up a mutually agreeable date for a meeting.

Sincerely,

U. G. Stoeffler

U. G. Stoeffler
Manager Process Development

R. Richard Eaton

R. Richard Eaton
Manager Utilities, Maintenance and Engineering

/kmj

September 4, 1984

TO: Allied Paper Company F File

FROM: Les Thomas Les Thomas

SUBJECT: Summary of Basis for the Proposed NPDES permit

The following points represent the basis for the proposed permit as presented to the WRC July 19, 1984.

1. Antibacksliding: Staff recommends some loading increases due to an increase in production since the current permit was issued. This change is consistent with the federal antibacksliding regulation.

   Allied has requested to be given an increase because new information has been made available since the current permit issuance in December, 1974. Staff agrees that the 1976 intensive river survey provided new information regarding the winter season assimilative capacity in the Kalamazoo River. However, rule 1098 (nondegradation) of the WRC Part 4 Rules would prohibit additional loadings.

   Staff does not believe that Allied's request to have the November 18, 1982, proposed regulation for corrections due to calculation mistakes, technical errors, or misinterpretations is appropropriate. Staff drafts permits based on final regulations rather than proposed regulations. Additionally, staff does not believe that any technical mistakes have been made or at the very least have not been corrected. Staff, therefore does not support the use of those proposed regulation as a reason for relaxing the proposed permit limits.

2. Nondegradation: Staff interprets the nondegradation rule 1098 to mean that if existing permit limits are water quality based and the permittee is in compliance with those limits then they should be required to continue to meet those limits. This requirement should be maintained even though there may be additional assimilative capacity available within the river. Allowances could be made by the Commission for new and increased uses.

   In cases such as Allied's, allowances could be made at the discretion of the WRC if the permittee has affirmatively demonstrated to the WRC that a lowering in quality will not be unreasonable and against the public interest.

3. Total Suspended Solids/Turbidity/Aesthetics: This issue of total suspended solids and turbidity is one that is of great concern with the division's field staff. The field staff's concern is that even now there are occasional incidences of unacceptable levels of turbidity in Portage Creek downstream of Allied's discharge. Field staff believe that relaxation of the TSS loadings will only increase the incidences of turbid conditions. Turbidity is addressed in rule 1050. The water quality standard described by rule 1050 states that "all waters of the state shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids or deposits in quantities which are or may become injurious to any designated use". Turbidity has in the past exceeded this standard.

   The Fisheries Division staff believe that the discharge of such high loadings of TSS will have a direct effect on the fisheries program for Portage Creek and will also adversely affect the fisheries in the Kalamazoo River.

4. Bypass Provision: 40 CFR 122.41(m) promulgated April 1, 1983, defines bypass as the intentional diversion of waste streams from any portion of a treatment facility. At the present time the Kalamazoo wastewater treatment plant is an integral part of the Company's total treatment system which allows the Company to maintain compliance with the current permit. This regulation further explains that the permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. By-pass of the Kalamazoo treatment system with direct discharge to Portage Creek would cause existing permit effluent limitations to be exceeded.

   A key point in this regulation is the reference to efficient operation. Allied's system of a computer controlled flow adjustment from the primary clarifier to Portage Creek or to the municipal wastewater treatment system is a system to provide minimum treatment manipulation. This system is controlled to maintain wastewater quality as close to the allowable limits as possible.

   A system of manipulation to meet permit limits rather than a system operated to achieve the lowest pollutant loading in the most efficient method is not desirable. A system operated in the most efficient method to achieve the most reduction in pollutants meets the definition of allowable bypasses. A manipulative system which does not meet the lowest pollutant loading possible does not meet the definition for allowable bypasses.

   Therefore, Allied's method of bypasses to and from Portage Creek at the very least should not allow for relaxed permit limits.

ejs

September 4, 1984

P-file

R. Richard Eaton
Allied Paper Company
P.O. Box 2523
Kalamazoo, Michigan 49003

Dear Mr. Eaton:

This letter is in response to the presentation made before the Water Resources Commission in July 1984 by Mr. Mike Harris of CH2M Hill and Mr. John DeWitt, Legal Counsel for the Allied Paper Company. The presentation was to provide rationale for increasing the wintertime BOD and TSS limits up to the federal categorical limits.

The historical permit development facts as presented to the Commission were generally accurate. Staff's response to specific interpretative issues of the presentation follows:

Mr. Harris felt that the primary issue at hand is whether or not the proposed permit limits are necessary to meet water quality standards in the Kalamazoo River.

The summer BOD limit of 389 lbs. per day is necessary to meet the DO standard in the Kalamazoo River. The winter BOD limit of 836 lbs/day will allow the DO standard to be met during the winter season. The winter BOD limit of 4,277 lbs/day as contained in the public noticed version of the draft permit would also allow the minimum DO standard to be met in the Kalamazoo River. Staff agrees that the BOD summer and winter limits are an issue, but staff does not believe that they are a primary issue as far as the DO river standard in the Kalamazoo River is concerned.

Mr. Harris made reference to the results of an October 1982 DNR Water Quality Survey and of the 1983 DNR modeling of the Kalamazoo River. Mr. Harris pointed out that the water quality DO standard was met during the winter season when the BOD loadings from dischargers were greater than the current permit winter limits and when all dischargers were represented in the model with BOD loadings equal to BPT limits. Staff recognizes that the winter flows are greater than the 7Q10 and the colder temperatures create a lesser demand on available oxygen resources. The assimilative capacity is, therefore, greater in the winter. However, it must also be noted that the existing water quality during the winter is better than the minimum water quality standards prescribed by the 1973 standards, and such water quality cannot be lowered in accordance with Rule 1098 (Nondegradation) by the Commission unless and until it has been affirmatively demonstrated to the Commission that a change in quality will not become injurious, and will not be unreasonable and against the public interest.

Mr. Harris referenced a letter from Michigan DNR to Allied of May 2, 1984. According to Mr. Harris, this letter informed the Company of EPA's veto of an increase in BOD due to the anti-backsliding regulation 40 CFR 122.44(l). More accurately, this letter informed the Company that EPA had informed the State that this regulation needs to be applied when reissuing permits. Staff was informed of this by EPA in the normal manner of review of the public noticed permit. This was not an EPA veto.

Mr. Harris informed the Commission of a May 31, 1984, letter from Allied to the Michigan DNR. This letter explained why the Company believed that they should qualify for an exception to the application of the anti-backsliding regulation. The exception which the Company requested consideration for is 40 CFR 122.44(l)(2)(iv). This regulation states, "The circumstances by which previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under 122.62".

Regulation 122.62, sets forth various reasons or causes for permit modification. Those which Mr. Harris refers to are "alterations", "new information" and "new regulations".

"Alterations" are described by the regulation as "material and substantial alterations or additions to the permitted facility or activity, etc.". Mr. Harris has listed an increase of production under this heading. Staff believes that the increased production is more appropriately addressed by 40 CFR 122.44(l)(2)(v). Staff has, therefore, recommended that the BOD and TSS winter limits be slightly increased due to the production increases at the plant.

The regulations described "information" as "the Director has reviewed new information. Permits may be modified during their term for this cause only if the information was not available at the time of permit issuance, and would have justified the application of different permit conditions at the time of issuance". Mr. Harris referred to the MDNR, October 1982 Kalamazoo River Survey and the MDNR 1983 modeling work as representing new information showing more assimilative capacity available during the winter.

The October 1982 survey did not produce new information. It confirmed what staff had already realized to be true about the winter time assimilative capacity of the Kalamazoo River. A 1976 intensive river survey was the first survey which showed more capacity was available in the Kalamazoo River during the winter season. The 1976 survey information does constitute new information, and it could be argued that Rule 122.62 conditions for modification are therefore met. However, in referring back to Rule

40 CFR 122.44(1)(2) the circumstances by which the previous permit was based would have to be substantially and materially changed. We do not believe that this is the case.

Mr. Harris also argued that a permit modification under 122.62 is appropriate because "Standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued." Mr. Harris discussed the way permits were drafted and issued to paper mills on the Fox and Wisconsin Rivers in Wisconsin. Flow and temperature and cluster variable permits were issued for these facilities. Our State water quality rules do not guide MDNR staff to draft permits in this fashion. A rule change would be necessary before staff could begin implementing a similar concept.

Mr. Harris referenced a proposed rule change which would allow the modification of permit limits in order to correct technical mistakes such as errors in calculation, or mistaken interpretation of law made in determining conditions.

Staff does not feel that technical mistakes or mistaken interpretations have been made in determining the conditions of the 1974 permit or of the permit presented to the WRC July 19, 1984.

Also, the proposed rule change of November 18, 1982, has not yet been promulgated. It is not appropriate to draft permits based on proposed rules.

During the month of June 1984, meetings were held between the DNR and Allied Paper Company. Allied was informed that along with addressing the Federal anti-backsliding regulation, the public noticed permit was not consistent with Rule 1098: Nondegradation, of the water quality standards. Allied was informed that Rule 1098 would require the maintenance of the current limitations. Allied was informed also that the rule does allow the Company the opportunity to demonstrate to the Commission that degradation should be allowed because the resulting change in quality will not become injurious and will not be against the public interest.

Mr. Harris presented Allied's perception of how MDNR staff interpreted Rules 1090 and 1098. Mr. Harris' first point was that if the receiving body is water quality limited, it must be considered as such year round even if the limitations occur only in a single season. This is not true. Allied's current permit, in fact, provides for higher limits in the winter season.

The second point made by Mr. Harris was that if quality improves through enforcement of limits, antidegradation will be judged against the new quality. Staff agrees with this statement.

The third point made by Mr. Harris was that even if water quality based limits are more restrictive then necessary, they can never be relaxed. The situation is not that absolute. The WRC must weigh all issues in determining whether permit limits should be relaxed. Staff recommendation in the case of this permit is that the WRC should not relax the limits.

A fourth point was that if treatment facilities are installed, they must be operated forever, regardless of cost or necessity. Staff generally agrees with this statement and would also add that the treatment facility must be efficiently operated and maintained. Staff also believes that the cost versus the benefit factors need to be responsible considerations of the WRC to determine what is in the public interest.

Finally, Mr. Harris made a few statements on how Allied interprets the WRC Rules 1075, 1090, 1098. His first statement was that seasonal temperature variations are recognized by Rule 1075. Staff agrees with this statement. Seasonal relief has been given, based on temperature, and has been applied in Allied proposed permit. Mr. Harris' interpretation of Rule 1090 was that the water quality standards apply to flows greater than or equal to 7Q10. Staff agrees with that statement.

Mr. Harris claims that limitations are to be designed to meet water quality standards. The water quality standards represent the very minimum standards that will assure that the designated uses will be protected. If better water quality can be achieved with existing facilities, it should be.

Mr. Harris made the statement that nondegradation policy does not apply to the Kalamazoo River. Staff disagrees. The standards apply to all waters of the state. Rule 1098 applies to the Kalamazoo River.

A fifth statement by Mr. Harris was that rules do not preclude permit modification. Staff agrees with this statement.

Mr. Harris' sixth statement was that the rules do not preclude seasonal and flow and temperature variations. Rule 1090 describes the accepted design stream flow to which the water quality standards shall apply as being equal to or greater than 7Q10. Staff considers the seasons and the flow, and temperatures when developing permit limitations. Allied's proposed permit has been drafted with these factors being considered.

The above responses have been made to the specific concerns raised before the Water Resources Commission by representatives for Allied Paper Company. If you have any further comments or questions, please feel free to contact our office.

Sincerely,

Lyell Thomas
Permits Section
Surface Water Quality Division
517-373-8088

J. Suppnick, B. Shaw, F. Morley, J. DeWitt, M. Harris

National Audubon Society
NATIONAL CAPITAL OFFICE
645 PENNSYLVANIA AVENUE, S.E., WASHINGTON, D.C. 20003 (202) 547-9009

STATEMENT OF HOPE M. BABCOCK

DEPUTY COUNSEL AND DIRECTOR, PUBLIC LANDS & WATERS PROGRAM

NATIONAL AUDUBON SOCIETY

ON REAUTHORIZATION OF THE CLEAN WATER ACT

BEFORE THE

WATER RESOURCES SUBCOMMITTEE

OF THE

HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE

APRIL 25, 1985

My name is Hope Babcock. I am Deputy Counsel of the National Audubon Society and Director of Audubon's Public Lands and Waters Program. Audubon is a nationwide, nonprofit organization of over one-half million members dedicated to the wise use and conservation of our natural resources and protection of the environment. A high priority of our members is protecting the quality of our nation's waters. Therefore, I particularly appreciate this opportunity to testify.

Audubon supports H.R. 8, but we would like to see certain strengthening changes made in that bill, as I will testify today. On balance, Audubon opposes the Administration's package of proposed variances, stays and extensions.

I will confine my testimony to the Administration's proposal, some suggested changes to the nonpoint source pollution control program and to the proposed program to protect bays and estuaries, and the need for an amendment to respond to a recent Supreme Court decision on toxic variances in the pretreatment program.

Let me start with the Administration's bill. Several of the Administration's proposed amendments to the Clean Water Act are constructive improvements to that statute that we could support, such as the provisions which prohibit the discharge of primary treated sewage into estuaries, narrow the variance for nonconventional pollutants, authorize the Administrator to charge fees for processing variance applications, and strengthen existing civil and criminal penalty provisions (but not the Administration's administrative penalties provision which has serious problems as discussed in detail in the testimony of Fran Dubrowski of the Natural Resources Defense

Council). However, the objectionable provisions in that proposal, four of which I would like to discuss in some detail in my testimony, make the package as a whole unacceptable.

First, the Administration proposes authorizing the Administrator to grant a 6-month stay of otherwise valid requirements under the Act upon the filing of an application to modify those requirements. This stay can be extended for an additional six months upon a showing of administrative need and substantial likelihood of the applicant's prevailing on the merits. The caveat that a stay may not be granted if it poses "an unacceptable risk to human health or the environment" will not act to curtail the granting of many stays because the risk data is not there to sustain such a showing. The proposal is an unneccessary reversal of the statutory presumption that national uniform standards shall apply to all categories or classes of point sources of pollution unless and until a variance application is successfully prosecuted through the agency. Granting the stay in advance of the administrative determination of its appropriateness prejudges the applicant's right to the relief he seeks and gives him premature and perhaps unwaranted relief. We oppose this proposed change to the Act.

My second point of disagreement with the Administration concerns their proposed variance for coal remining operations. The Administration has proposed a broad, largely unrestricted variance from national effluent limitations for coal remining operations, which we oppose. While we do not disagree that there is an important, albeit limited problem concerning pollution from some abandoned coal mine sites, especially in Appalachia, and that incentives should be considered where appropriate to encourage reclamation of those sites through their remining, the Administration's response is well beyond what is needed and will only serve to devastate further an already devastated region of the country.

The proposed amendment relaxes water pollution controls required not just by the Clean Water Act, but also by the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201). The proposed amendment may go even further relaxing important other hydrological and reclamation requirements in the Surface Mining Act, because of the interrelationship between that Act's pollution control requirements and its hydrological and reclamation requirements.

I want to impress upon this Committee that this is not an insignificant proposal by the Administration. There are approximately 400,000 acres of abandoned mines containing economically recoverable coal. In fact, a significant percentage of the mining activities occurring in this country today occurs at abandoned coal mine sites because of the economic advantages associated with reworking an abandoned site as opposed to opening up a new area. Acid drainage and erosion from unreclaimed mines causes severe water quality degradation that persists long after mining has ceased, in some cases rendering entire watersheds biologically dead. To date, acid mine drainage has damaged over 11,000 stream miles. The Environmental Protection Agency estimates that 49% of the streams in Region 3 suffer severe water quality problems due to acid mine drainage. [EPA, Report to Congress: Nonpoint Source Pollution in the U.S. (January 1984), pp. 2-19 through 2-25]. The Tennessee Valley Authority reports in the valley states of Tennessee, Virginia, North Carolina and Kentucky that pollution from poorly reclaimed or unreclaimed coal and noncoal mine lands has adversely affected six tributaries of the Tennessee River, caused sediment build-up, water quality deterioration, and loss of water supply and flood storage capacity in two locally owned reservoirs, and has caused TVA, in one situation in East Tennessee, to retire a hydroelectric facility with a loss of power worth $1.1 million per year. In northern Alabama, runoff of acidic water and sediment from an abandoned mine is impairing the recreational use of Upper Bear Creek Reservoir and its use as a regional water supply.

The Administration's proposed variance for coal remining will only exacerbate this situation. First, the variance applies to large operations, which have no difficulty meeting existing effluent limitations, like those that remove entire mountain tops. Second, the proposed amendment does not limit the extent of the variance to the lowest achievable pollutant level for the discharge effluent; instead it allows remining operations to pollute up to the level of pollution existing when the remining operation began. Requiring mine operations to comply with requirements imposed under Section 301(b)(1)(C) will only be as good as those State water quality standards. Judging by the recent experience in Pennsylvania, where efforts are underway at the state level to weaken state water quality standards, this will be a slim reed upon which to rest future Appalachian water quality. While it is true that the language currently appearing in Section 20 of H.R. 8 creates some ambiguity on the extent to which cleanup beyond pre-remining background levels is required, a floor colloquoy between Mr. Udall and Mr. Rahall leaves no doubt as to the intent of the amendment to improve existing discharges from the remined site [Cong. Rec. H. 6909-6910 (June 26, 1984)]. Third, the amendment fails to distinguish between old and new discharges at a remined site, which are often comingled. This failure gives unwarranted relief to new mine workings. Fourth, the amendment creates a fictitious distinction between so-called "unencountered" and "encountered" waters, proposing to regulate only the latter. This Steven Speilberg concept has no foundation in hydrologic reality

-- there are no legally "unencountered waters" in mining. Incorporating this fiction into the Clean Water Act, however, will legitimize the current illegal practice in some parts of Appalachia of mining around existing discharges to avoid the burden of reclaiming these areas to meet national effluent limitations. Last, by broadly defining "coal remining operations" to include any "site at which coal mining operations have occurred in the past," the proposed amendment grants relief beyond what is appropriate by including operations which have been illegally abandoned since the enactment of the Surface Mining Act -- a number incidentally that is growing by the thousands annually!

Last year, a compromise was worked out between the coal mining industry and the environmental community that had the support of this Committee and Representative Udall, Chairman of the House Interior and Insular Affairs Committee, the Committee with jurisdiction over the Surface Mining Act. That compromise is accurately reflected in Section 20 of H.R. 8. We support that compromise and see no reason to make any change in it of the magnitude proposed by the Administration. It might, however, be worthwile having the Committee consider clearing up the ambiguity with regard to the standard of cleanup required at remined sites by cross-referencing to the criteria contained in Section 304(b) of the Act.

Third, I would like to touch briefly on the Administration's proposed extension in the effective date of new source performance standards. Under current law, a "new source" is one which commences construction after the proposal of a new source performance standard. The Administration suggests modifying this language so that a new source would be any facility that begins construction after issuance of final regulations.

While seemingly a minor change on its face, this proposed amendment will significantly delay implementation of new source performance standards. By originally selecting the date of publication of proposed regulations as the point at which a new source fell within the Section's jurisdiction, Congress was responding to delays brought about in promulgation of regulations implementing the Clean Water Act by lengthy rulemaking proceedings and litigation. Often years go by between proposal of a regulation and its enactment in final form. By requiring implementation of these more stringent standards for new sources upon proposal, Congress was responding to that reality and the impact of delay on achieving the Act's goals. There is no reason for this Congress to abandon that position and adopt the Administration's proposed relaxation of these requirements.

Last, the Administration proposes an amendment legitimizing their hitherto "illegal" practice of issuing general permits under Section 402 of the Act. We oppose this amendment in its current form. While there may be reasons of administrative convenience for this proposal, as currently drafted it authorizes the unrestricted issuance of 402 general permits for any activity of any size or any impact -- in fact, as written, the Administrator could issue a single general permit for the entire country.

The Committee should understand that a general permit once issued authorizes all activities fitting within the scope of that permit to proceed without any further review by the agency, other affected state or federal agencies or by the general public. A general permit is a blanket authorization to discharge pollutants -- in effect, deregulating previously regulated activities. There is minimum, if any enforcement, and what enforcement does occur focuses only on the consistency of the activity with the general authorization. The National Environmental Policy Act does not apply to activities under authority of a general permit. Judging from the experience with general permits under Section 404 of the Act, no agency looks at the cumulative effect of general permit authorizations on a given watershed or whether continuation of a given general permit is appropriate. Once issued, the permitting agency tends to walk away from the area and put its resources into individual permit writing. In short, general permits are a very bad idea except in the most limited circumstances.

If the agency is going to pursue this approach and if the Committee is seriously going to consider giving the Administrator the relief he proposes, then at a minimum, the safeguards found in Section 404(e) of the Act must be incorporated into this proposal. Those restrictions on the authority to issue general permits for the discharge of dredged or fill material into wetlands require a determination, in that case by the Secretary of the Army, that the activities for which such a permit is issued are (1) similar in nature, (2) will cause only minimal adverse environmental effects when performed separately, and (3) will have only minimal cumulative adverse effect on the environment. General permits are limited by Section 404(e)(2) to five years and can be revoked or modified by the Secretary, if after public hearing, he determines that the activities authorized by the general permit will have an adverse environmental impact or are more appropriately authorized by individual permits. There are some additional requirements in Section 404(e)(1) which are pertinent to the 404 program, which the Committee might consider tailoring to fit the particulars of the 402 program, if this proposal by the Administration finds any acceptance on the Committee.

I would now like to turn to the topic of nonpoint source pollution. Much has happened since Audubon first testified before this Committee on nonpoint source pollution control. There is now, as there was not then, broad-based agreement on the need to begin the process of controlling this serious source of pollution of our nation's waters and even surprising agreement on the process itself. Appreciation of the costs of nonpoint source pollution, calculated to be as high as $6 billion per year for just erosion-related pollutants [Edwin H. Clark, II, "The Off-Site Costs of Soil Erosion," Journal of Soil and Water Conservation (January/February 1985), p. 23, at 26U], and the national extent of the problem have helped forge that consensus. EPA reports that based on the 1982 State §305(b) biennial water quality reports "virtually all states have some water quality problems caused by nonpoint sources." [Carl F. Myers, James Meek, Stuart Tuller, and Anne Weinberg, "Nonpoint Sources of Water Pollution," Journal of Soil and Water Conservation (January/February 1985), p. 14]. It seems clear that the country cannot afford to wait any longer before initiating the necessary controls on nonpoint pollution. We are pleased to infer from H.R. 8 that you agree with us that we can wait no longer.

Audubon supports the nonpoint souce control program set forth in Section 319 of H.R. 8 (and in Representative Oberstar's bill, H.R. 379), though we believe that the program could be strengthened slightly. The proposed program represents a balanced compromise, a workable combination of incentives and requirements, which should enable the process of controlling nonpoint source pollution to start. I emphasize the word "start." I think we all appreciate that this program will only start the process at the national level of addressing this troublesome form of pollution. We may well need to take a second, and even third look at how we go about the task of abating nonpoint source pollution as we gain experience under this program.

With regard to the specifics of the program set forth in Section 319, Audubon would like to propose for this Committee's consideration some modest ways in which the proposal might be made more effective without going beyond what makes practical sense at this point in time.

First, we ask the Committee to consider amending Section 303(c)(2) of the Act to require states to adopt criteria for pollutants found in nonpoint source pollution for which the Administrator has issued criteria or information under Section 304(a) of the Act. This amendment is necessary because the proposed nonpoint source program described in Section 319 is premised upon States having sufficiently comprehensive and stringent water quality standards. In other words, a state's nonpoint program will only be as good as the state's water quality standards against which it is measured. Therefore, improving the scope of these standards can only improve the effectiveness of the nonpoint program. Until states promulgate water quality standards for pesticide residues, fertilizers, lead, and heavy metals, for example, all found in significant quantities in runoff around the country, waters containing these pollutants may not be part of the program.

This proposal merely requires states to do what they are already under some obligation to do anyway under Section 303(c) -- i.e., to revise and modify their water quality standards every three years, during which process they should be developing standards consistent with EPA's guidance and information issued under Section 304(a). By limiting the pollutants in this proposed amendment to those of concern in the nonpoint source program and to those for which the Administrator has already published and issued criteria

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and information for the states, the proposal makes this a manageable task for the states.

Second, there is increasing evidence of a relationship between nonpoint source pollution and groundwater contamination. The most dramatic recent example of this is the one we have occurring in California at the Kesterson Wildlife Refuge where high levels of selenium, arsenic and heavy metals have been found in the Refuge's reservoir as a result of agricultural drainage in the San Joaquin Valley. Kesterson is not the only instance of this, however. A dozen pesticides, including herbicides, have been detected in a northwestern Ohio agricultural watershed from which drinking water is drawn. High levels of pesticides have been found in tap water which correlate to levels in rivers serving as sources of raw water. Nitrogen-N levels in Nebraska's groundwater are twice the national drinking water standard for that pollutant. Nitrate levels in Iowa reached such high levels in May of last year that two state agencies, the Iowa Department of Water, Air and Water Management and the Health Commissioner, debated over whether or not these consistently high levels posed a health threat to babies.

This relationship could pose a serious health problem, especially in the rural areas of our country. Excessive levels of nitrogen, for example, reduces the oxygen carrying capacity of blood which can lead to oxygen deprivation or, in extreme cases, to asphyxiation (the "blue baby" phenomenon). A recent study from Australia shows a frightening correlation between consumption of drinking water standard levels of nitrogen and a three- to four-fold increase in the risk of birth defects. [Margaret M. Dorsch, Robert K. R. Scragg, Anthony J. McMichael, Peter A. Baghurst, and Kenneth F. Dyer, "Congenital Malformations and Maternal Drinking Water Supply in Rural

South Australia: A Case-Control Study," American Journal of Epidemiology (April 1984), p. 473.] I would be pleased to provide a copy of this study for the record, if the Chairman so desires.

Farm families drink most of their water without treatment and rural water supplies are seldom checked for purity. Many farm families draw drinking water from relatively shallow aquifers that are recharged by infiltration through porous soils. These aquifers are, therefore, particularly susceptible to contamination from nitrates, pesticide residues and other water soluble pollutants. Intensified irrigation and farming practices employed around the country are increasing the rate at which these materials may be moving into groundwater. A recent study in Colorado referenced in a 1985 Environmental and Energy Study Institute Staff Report, entitled "Groundwater Protection: Emerging Issues and Policy Challenges," revealed that between 25 and 30 pounds of nitrogen is lost to groundwater for each acre of fertilized soil in that state. The U.S. Department of Agriculture projects a usage of approximately 1.25 million tons of pesticides in 1985. [U.S. Department of Agriculture (1980) RCA Appraisal 1980: Review Draft, Part II. Washington, D.C.: USDA, as quoted in an article by R. Neil Sampson, Executive Vice President, American Forestry Association, "Human Health and Water Quality as Related to the Uses and Management of Water for Agriculture." Copyright 1985 Praeger Publishers.] The National Research Council estimates that there are some 3,350 chemicals involved, of which only about 10% have undergone a complete health hazard assessment. [U.S. National Research Council, 1984. Toxicity Testing. Washington, D.C.: National Academy Press, as quoted in the same article by R. Neil Sampson.]

While it is true that the full extent of the relationship between nonpoint source pollution and groundwater contamination is not yet fully understood, it is important that the program set forth in Section 319 not make matters worse by inviting implementation of best management practices that would adversely affect groundwater. Therefore, we ask the Committee to consider one additional minor change to Section 319.

This amendment would direct states, in the identification of best management practices, to consider the impact of those practices on groundwater. For example, holding water on a farm field or slowing down the rate at which it crosses a field increases the opportunity for that water to percolate through the soil to groundwater. If our proposed change were adopted by this Committee, it might mean that farmers in porous soil regions with high water tables would be discouraged from employing what under different circumstances might be best management practices, like sedimentation basins or conservation tillage as these practices hold water on fields. Let me be clear that the proponent of a particular best management practice would not be required under this amendment to prove that a particular practice would not contaminate groundwater, but merely to show that the possible impact of the application of that practice on groundwater was considered in the design of the practice.

We are all concerned about money for new programs in these years of deficit federal budgets. This concern applies to the nonpoint source program as well. The bill authorizes $750 million for the program's five-year duration. While we whole-heartedly support the authorization of this money, we are not unmindful of the resistance any new money may encounter. For example, EPA has not requested any funds in its FY 86 budget request for implementation of its recently issued nonpoint source policy; nor has the agency sought any increase in its Section 106 funds which it was proposing last year to use for that purpose. Without unequivocal direction from Congress, it is clear that EPA will not spend any money on nonpoint source cleanup.

To help with this conundrum, we ask this Committee to be flexible with regard to suggestions to open up the discretionary category of funding under the construction grants program as a supplementary or fall-back source of money for nonpoint source program. There is an external logic to this request. Nonpoint source pollution poses a serious operations problem for publicly owned treatment work facilities. POTWs and nonpoint sources contribute the same kind of pollution to our waters; frequently pollutants contributed by nonpoint sources exceed those coming from treatment work facilities. For example, according to a recent survey by the Tennessee Valley Authority, urban nonpoint sources of pollution in their seven-state area contributed more biological oxygen demand, suspended solids, copper, zinc, chromium, nickel and iron than the combined annual loads of these pollutants from wastewater treatment plants in the area.

We ask that states be given some mimimal level of flexibility, once secondary treatment requirements have been met, to target clean water funding to where it might be most cost effective. This proposal is intended to give them that flexibility and at the same time serve as a backstop should funding levels for the program not be realized as anticipated.

I would like to turn now to Section 46, Maintenance of Water Quality in Estuaries. Let me start by saying that we are delighted at the reappearance of this Section from last year's bill. Our nation's estuaries are in serious trouble. For too long, they have been the dumping grounds of much of our national waste. The Clean Water Act simply does not provide the necessary tools to address complex, large, often regional ecosystems like estuaries.

The Chesapeake Bay has been the most visible of the bays in trouble, but by no means the only one. High concentrations of coliform bacteria have forced the closing of sections of Mobile Bay to shellfish harvesting. In San Francisco Bay, localized heavy concentrations of mercury, lead and gold from Silicon Valley, salt water intrusion and destruction of wetlands pose a significant threat to aquatic life. There is also strong evidence that pesticides and fertilizers washing in from the Sacramento and San Joaquin rivers are causing infertility in striped bass, resulting in population declines in that species in the last decade in excess of 50% -- not unlike the decline in striped bass here in the Chesapeake.

Our estuaries are also disappearing, much like our wetlands. Over one million acres in estuarine habitat have been lost nationwide since 1960. California recorded a 67% decrease in basic estuarine habitat between 1950 and 1967, when indiscriminate filling was finally halted by the State.

There is an urgent need to protect these vital natural ecosystems from pollution and overuse before it is too late. Section 46 will go a long way towards meeting that need by establishing a program which will (1) cover enough of the estuarine watershed to bring under management control the most important of the activities contributing to an estuary's decline; (2) provide a management framework under which States, in partnership with the Federal Government. can come together to develop an enforceable master plan to protect the estuary; and (3) provide financial assistance to those States involved in the management conference for implementation of pollution control measures, monitoring the health of the estuary and the effectiveness of the controls, and for conducting the necessary research. We do, however, have a few minor changes to Section 46 that we ask the Committee to consider when it evaluates this critically important program.

We would like to see explicit opportunities for public participation in the process of both convening an estuarine management conference and of developing a master plan. Toward that end, we ask that the bill be amended to authorize citizens to comment on the plan that is submitted to the Administrator for approval and to petition the Administrator to convene an estuarine management conference.

Second, we are very concerned that bays which are not subject to multi-state jurisdiction like Penobscot, Casco, Booth, Frenchman, Pleasant or Machias bays in Maine; Benicia Port, San Francisco, San Pablo or Monterey bays in California; New Haven Harbor in Connecticut; Apalachee, Dead Mans, Crystal, Waccasassa or Tampa bays in Florida; Vermillion, West Cote Blanche, East Cote Blanche or Barataria bays in Louisiana; Great or Barnegat bays in New Jersey; Pimlico or Bogue Sound or Cape Fear in North Carolina; Tillamook, Winchester, or Coos bays in Oregon; Baffin, Corpus Christi, San Antonio, Matagorda or Galveston bays in Texas; Grays Harbor In Washington; Massachusetts, New Bedford, Vineyard Sound or Plymoutn bays in Massachusetts; or areas like Cook Inlet or Norton Sound in Alaska, will not qualify for the program under the showing required in Section 46(a)(1) with regard to interstate control of the sources of pollution. Accordingly, we ask the Committee to consider authorizing the Administrator to convene a management conference upon the request of a single state or of a federal agency when it can be determined that there is a need for coordination between federal agencies or between federal and state agencies. The need for this type of provision for the single state as well as the multistate estuary is illustrated by the case of

San Francisco Bay where there are nine counties, 36 cities and several federal agencies with jurisdiction over the Bay's shoreline -- this list does not include all the separate permitting authorities over the bay and its tributaries.

Third, the bill should make clear that any corrective actions or compliance schedules proposed in the master plan must be at least as stringent as or more stringent than existing requirements. In other words, the result of participating in this program should be a regimen of controls for an estuary that is consistent with and in addition to those that would otherwise be in place in the individual states without the program. While this fundamental concept is implicit in the proposed Section, it should be made explicit to avoid future confusion.

Before I conclude my testimony, I would like to address briefly the subject of toxic variances and the need to amend the Clean Water Act to overturn the recent U.S. Supreme Court decision in Chemical Manufacturers Assn., et al. v. Natural Resources Defense Council, No. 83-1013, Slip Op (February 27, 1985). In that case, the Supreme Court affirmed (5-4) EPA's application of the so-called "fundamentally different factors" variance (FDF variance) to the Act's pretreatment program. We believe that, contrary to the Court's opinion and as stated by the dissenters, Congress did not intend there to be any toxic variances of any kind when it enacted the Clean Water Act in 1972, and that Congress affirmed that intent when it amended Section 307 in 1977. Accordingly, we ask this Committee to correct this misunderstanding by amending Section 301(l) of the Act to bar the application of FDF variances to toxic discharges in either the pretreatment or direct discharges program.

Thank you for your attention to my remarks. I would be pleased to answer any questions that you may have on my testimony.

POSSIBLE AMENDMENTS TO THE FEDERAL WATER POLLUTION CONTROL ACT

TUESDAY, APRIL 30, 1985

House of Representatives,
Subcommittee on Water Resources,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:05 a.m., in room 2167, Rayburn House Office Building, Hon. Robert A. Roe (chairman of the subcommittee) presiding.

Mr. Roe. Our first group of witnesses this morning, ladies and gentlemen, are going to be the association panel, which is a carryover from last week which we again apologize to you for; but as the thing worked out you would have been here until midnight, so I think it worked out OK.

So why don't you come up and get situated and so forth while we're waiting for Mr. Stangeland. And also, I understand that Mr. Leonard Ledbetter, who is president-elect of ASIWPCA and is also commissioner, Georgia Department of Natural Resources, has a little bit of a conflict because of a situation on the Senate side. Is he here? OK. If you don't mind sitting in with this panel—and they don't mind sitting with you, in both directions—then we'll try to work you all in at one time.

Now, if we could do something that would be helpful to all of us. You have substantive testimony that's important. What we'd like to do is have you summarize that testimony because, frankly, the verbiage is one thing but we want to get to the meat of it; otherwise we lose a great deal of time. This happened last week, which I'd rather not happen again today. So as we go through the different panelists, please strike upon the points that you see to be important. That'll give us a chance to be able to get into cross-discussion and so forth on the areas of most concern.

So suppose we proceed, and who wants to be first? Mr. Perry or Mr. Spear?

All right, Mr. Perry.

Why don't you have everyone introduce themselves for the record, and then you can proceed from there, Mr. Perry?

TESTIMONY OF ROBERT R. PERRY, ASSISTANT EXECUTIVE DIRECTOR, WATER POLLUTION CONTROL FEDERATION; LORRETA SIMMONS, PRESIDENT, BLAIR SUPPLY CORP., ROCHESTER, NY, AND PRESIDENT, NATIONAL UTILITY CONTRACTORS ASSOCIATION; KEN SPEARS, INFILCO DEGREMONT, INC., AND MEMBER, BOARD OF DIRECTORS, WATER & WASTEWATER EQUIPMENT MANUFACTURERS ASSOCIATION, INC.; J. LEONARD LEDBETTER, PRESIDENT-ELECT, ASSOCIATION OF STATE & INTERSTATE WATER POLLUTION CONTROL ADMINISTRATORS, AND COMMISSIONER, GEORGIA DEPARTMENT OF NATURAL RESOURCES, ACCOMPANIED BY ROBBI SAVAGE, EXECUTIVE DIRECTOR, ASIWPCA; F. THOMAS WESTCOTT, PRESIDENT, WESTCOTT CONSTRUCTION CORP., NORTH ATTLEBORO, MA, ON BEHALF OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA; J. WILLIAM HAUN, VICE PRESIDENT, ENGINEERING POLICY, GENERAL MILLS, INC., AND CHAIRMAN, NATIONAL ENVIRONMENTAL DEVELOPMENT ASSOCIATION WATER PROJECT; AND JAMES R. SHEETS, RESEARCH DIRECTOR, LABORERS' INTERNATIONAL UNION OF NORTH AMERICA, ON BEHALF OF THE BUILDING AND CONSTRUCTION TRADES DEPARTMENT, AFL-CIO

Mr. PERRY. I'm Robert Perry; I'm assistant executive director of the Water Pollution Control Federation.

Mr. SPEAR. Ken Spear with Infilco Degremont, representing the Water & Wastewater Equipment Manufacturers Association.

Mr. ROE. Good.

Mr. LEDBETTER. I'm J. Leonard Ledbetter, commissioner of natural resources in Georgia, representing the Association of State & Interstate Water Pollution Control Administrators.

Ms. SAVAGE. I'm Robbi Savage, the executive director of ASIWPCA, the Association of State and Interstate Water Pollution Control Administrators.

Ms. SIMMONS. I'm Loretta Simmons, president of National Utility Contractors Association.

Mr. WESTCOTT. I'm Thomas Westcott, president of Westcott Construction Corp. of North Attleboro, MA, representing the Associated General Contractors of America.

Mr. ROE. Now, if you can work the rest of it out, you can start, Mr. Perry. Try again.

Mr. PERRY. Mr. Chairman, on behalf of our president, Harry Tow, I thank you for the opportunity to present our comments on the need for continued Federal assistance to municipal wastewater treatment facilities.

The federation believes that Federal assistance for municipal wastewater treatment should continue until 1995. In testimony before this committee 2 years ago, I expressed the federation's belief that such assistance should contribute to making treatment systems financially self-supporting. Economic and political events since then support this belief.

EPA's latest needs survey was released earlier this year. It shows that treatment needs remain high enough to justify continued Federal contributions to municipal clean water. Today, $40.6 billion in core needs remain to be met.

The Federal contribution to this program was substantially reduced in 1981, and it affected the results. We met nearly three times as many core needs between 1980 and 1982 as we did between 1982 and 1984. Between 1980 and 1982 we reduced outstanding needs by $9.9 billion. In the past 2-year period we reduced outstanding needs by $3.4 billion.

The federation believes that there are ways to meet this Nation's core treatment needs within a reasonable period of time at reasonable cost, but doing so will require that the Federal commitment continue. The amendments to the Clean Water Act proposed by EPA do not promote the goals of the act. If the Agency's proposals were enacted, we would reach the 21st century with nearly $32 billion in unmet needs. Needs of this magnitude equal over half of the treatment capacity created since 1972. Furthermore, these proposals will do little to encourage self-sufficiency among communities. Only core needs already holding a grant award would continue to get funds.

EPA's proposal has been tagged a "no new starts" plan. The nickname is accurate, for the plan allows no time for transition to a future without construction grants. Under EPA's scenario, States would have to concentrate on moving grandfathered projects through the process to avoid losing money in reallotment. Ineligible communities would wait to see if treatment requirements were really enforced once the grants program ended. Political realities being what they are, State and local governments would gamble on the unmet needs generating enough political support for reviving the program after 1989.

EPA's proposals are an attempt to satisfy the political liabilities created by projects now in the grants program, but they leave the bulk of the needed construction as a liability for future Congresses and administrations.

The grant-related provisions in H.R. 8 create an alternative to the existing program that should be tried. Most of the bill's amendments agree with the 13 principles on Federal assistance that the federation adopted in January 1985.

The federation supports a minimum annual appropriation of $2.4 billion, through fiscal 1995, if necessary. We also favor creation of State revolving funds so that more needs can be met.

The federation urges this committee to consider several ways to encourage conversions from Federal grants to such revolving funds. Give States enough time to create revolving fund programs. Most do not have the enabling legislation necessary to set up such programs this year; few, if any, will be prepared to do so next year. Make Federal allotments to States in lump sums that permit States to deposit all or any portion of their allotments to a revolving fund. Make State contributions to revolving funds optional, at least in the beginning, rather than mandatory. Mandatory contributions make it harder to sell the revolving fund concept to a State legislature.

Keep the Federal share for construction grants at 55 percent rather than increasing it to 65 percent. Don't make the funding problem worse.

Require States to dedicate all revolving fund moneys to wastewater treatment construction until these needs are met.

Treat moneys that have been used and then paid back to a fund as State revenues. Remove the requirement that they be treated as Federal funds ad infinitum.

H.R. 8 allows for a reasonable transition from a grants-only situation to a grants-plus-revolving fund situation.

To conclude, the members of the federation support the forms of Federal assistance to wastewater treatment contained in H.R. 8. If the recommendations presented above are included, the measure will meet the three tests of fulfilling core needs, maximizing Federal buying power, and contributing to making municipal treatment systems financially independent.

We commend this committee for acting on H.R. 8 and we offer our assistance in explaining the federation's position in more detail. Thank you, Mr. Chairman.

Mr. ROE. I thank the gentleman.

And now we will hear from the Mrs. Loretta Simmons, president of NUCA.

Ms. SIMMONS. Mr. Chairman, members of the committee, NUCA is comprised of companies that specialize in water delivery and wastewater treatment construction projects. As a result of our hands-on experience with the Clean Water Act, I offer a brief summary of the industry's views on the measures before us.

Continued Federal funding for the EPA Construction Grants Program is essential, and this association strongly disagrees with the White House proposal for a rapid phase-out. We support a 3- to 5-year reauthorization with an increase in yearly funding similar to that included in H.R. 8.

As we told the Senate Public Works panel, we favor a reauthorization plan that does not specify a phase-out. An increase in yearly funding reflects our understanding of the critical link between adequate wastewater treatment facilities and future economic growth.

You must also be aware of the apparently imminent reductions in Federal funding for other programs used by local governments to finance sewage treatment construction projects. While we may be open to criticism for advocating increased spending, we feel that it's crucial to realize that Federal funding for water pollution control programs has been cut drastically in this decade. Specifically, a study that was recently compiled by NUCA reveals a staggering 50 percent drop in funding, from $4.97 billion in fiscal 1980 to just $2.47 billion in the President's fiscal 1986 budget request. A breakdown of these figures is included on page 6 of our written testimony.

Our industry was an early staunch advocate of State revolving funds, and we support that section of H.R. 8 earmarking funds for State loan programs. However, we recommend that language be added to permit States to use their EPA grant money as grant or loan in addition to the funding included in the bill specifically for loans.

We wish to stress the continued importance of collectors, rehabilitation, and combined sewer overflow correction construction projects for which funding is now restricted to each Governor's 20 percent discretionary fund. Pipeline systems are a crucial element in this Nation's clean water effort. Wastewater treatment systems are just that, systems. The efficiency of a system is dependent on each of its parts, and a sophisticated treatment plant does little good if the pipelines carrying the sewage to it are aged and leaking.

We respectfully urge you to ensure that any final bill enacted by Congress includes language permitting the States to use their revolving funds for all categories of construction.

We also support the reestablishment of full eligibility for the combined sewer overflow correction work included in H.R. 8.

While we strongly support most of this legislation, we are opposed to section 59 which permits the use of EPA money to finance so-called "turnkey" projects. We are committed to the competitive bidding system as the most effective means of awarding contracts for the construction of public works. All qualified contractors are given an equal opportunity to compete for a contract. Unfortunately, such open competitive bidding is not part of most design and build projects.

The majority of this Nation's construction firms are small businesses, lacking the expertise or the financing to enter into a design and build project. Shutting them out of consideration would lead to less competition and increased project costs. We urge you to delete section 59.

In closing, Mr. Chairman, the two measures likely to be approved by the House and the Senate will surely contain major differences. I know I speak for most members of this panel in urging you and Senator Chafee and other conferees to be flexible in your respective bargaining positions. It is imperative to this Nation's environment and economic development that a reauthorization measure be enacted into law prior to October 1.

This concludes my summary. I will be happy to answer any questions after the other panelists have finished.

Mr. Roe. I thank the gentlelady.

Mr. Spear.

Mr. Spear. Mr. Chairman and members of the subcommittee, I am Ken Spear of Infilco Degremont and a member of the board of directors of the Water and Wastewater Equipment Manufacturers Association, or WWEMA, for short.

WWEMA is a 77-year-old organization of over 120 corporations that develop technology for and manufacture and supply equipment, materials, and services to the water supply and water pollution control industries. Our plants, in nearly all 50 States, employ some 50,000 people.

WWEMA recently completed a survey of State water pollution control administrators with respondents representing 90 percent of the total funds allocated through the Construction Grants Program, and 73 percent indicated that the July 1, 1988, municipal compliance deadline will be unachievable due mainly to a lack of financial capability. They also cited the inability of local governments to provide their share of the project costs and the lack of feasible alternative financing mechanisms as major problems.

Several of the States responding stated their expectation that the 1988 deadline would, as in the past, be extended. This expectation must not be fulfilled.

WWEMA is pleased to offer our support to the concept of your proposal for a dual construction grants and State-run loan program. WWEMA believes that any funding program for sewage treatment facilities must consider the National Municipal Policy July 1, 1988, deadline for municipalities to achieve secondary treatment, or to have an enforceable plan in place.

We are pleased that you would require States to dedicate loan funds to projects on the State priority list. However, WWEMA believes even greater emphasis should be placed on meeting the deadline. Grant funds, as well as loan funds, should be dedicated first to facilities attempting to comply with the Act, either through ongoing construction or the existence of an enforceable plan.

WWEMA proposes replacing the current Construction Grants Program with a loan guarantee Program over a 5-year period. We cannot stress strongly enough the need to remove the Federal Government from the sewage treatment facility construction business in the near future, with a phase-in of a State-administered Loan Guarantee Program. The logical time to begin the transition from Federal grants to self-supporting loan guarantees is now, when the Construction Grants Program is undergoing reauthorization and amendment.

Under WWEMA's proposal, the grants portion of the dual program would be phased out by 1990, when the loan guarantee portion will be fully implemented and all Federal funding should end.

WWEMA proposes increasing the $2.4 billion annual authorization to $5 billion in 1986 to provide both assistance and incentives to communities to meet the July 1988 deadline.

To achieve a self-supporting Loan Guarantee Program by 1990, $1 billion of the $5 billion annual appropriation would be dedicated to Loan Guarantee Programs in States with a program framework in place. The grants portion would continue to decrease by $1 billion each year, and the loan funding would increase by the same amount through 1990. The following year the Construction Grants Program would be ended, and the State-run construction Loan Guarantee Program would be fully funded in all 50 States; thus, under the WWEMA proposal, Federal funding for—as well as Federal participation in—sewage treatment would cease in 1990.

While we recognize your support of a 4-year funding commitment followed by a reexamination of the status of the Construction Grants Program to determine future funding requirements, we believe the situation has changed sufficiently to warrant the slightly different approach WWEMA proposes.

Financial incentives provided in the 1981 Clean Water Act amendments to encourage use of innovative and alternative technologies should be continued without change. The mandatory 4-percent set-aside has resulted in over 2,900 grant awards to design and/or construct over 1,400 facilities with innovative and alternative components in less than 5 years; 750 alternative technology projects are in the wastewater treatment field. Some 200 I/A projects are now in operation. There are projects either in operation or under construction in nearly all 50 States.

As suppliers of technology used for treating our Nation's water resources, WWEMA members continue to dedicate their research efforts and dollars to develop new techniques for improving the quality and quantity of the Nation's waters through conservation and reuse. The incentive to commit large financial resources to development of projects results from the current I/A Program. It must remain available to ensure continued investment in developing cost-effective treatment techniques.

While much has been accomplished under the I/A Program, there remains a hesitancy on the part of the engineering community to support using I/A processes on a given project. Currently, these projects represent a risk to the engineer's reputation without an incentive to take that risk.

WWEMA endorses the concept of "turnkey" projects in which one party is responsible for the planning, design, and construction of a wastewater treatment plant. This concept could provide several advantages to communities beyond the current procurement method under the EPA Construction Grants Program. These advantages include improved quality plant performance, greater use of innovative technology, reduced overall costs, and expedient completion of plant construction.

The "turnkey" approach encourages a team effort while providing quality facilities at a cost savings. By contracting with one party, the municipality is assured that the project will meet its effluent limitations in a timely, cost-effective fashion for the life expectancy of the plant. Industrial dischargers use this approach to meet their NPDES permit requirements. As a result, industry has a better compliance track record than municipalities. "Turnkey" construction could decrease by one-third to one-half the time required under current municipal methods for sewage treatment plant construction. For example, one large sludge treatment plant was designed, constructed, and placed in operation within 9 months using a "turnkey" approach. A similar project for a municipal client under the EPA Construction Grants Program would require anywhere from 2½ to 6 years to complete.

WWEMA supports section 59 of H.R. 8 and the new, similar provision in the Senate bill which would allow the use of "turnkey" contracts for treatment works with an estimated total cost of $8 million or less.

The 5-year NPDES permit has been called the primary regulatory tool for controlling toxic discharges. To ensure continued control of toxic discharges, the effective period of all NPDES permits must be kept at the current 5 years. The proposed 10-year permit would delay control of toxic pollution simply by delaying the inclusion of limits on toxic discharges to the end of the longer permit period. Simply put, neither EPA nor Congress should be in the business of permitting pollution, but in the business of controlling it.

The goals of the Clean Water Act cannot be met without addressing and regulating nonpoint source pollution. This source of water pollution can cause serious degrading of surface waters. WWEMA supports the provision in H.R. 8 that would make Federal funds available to States to encourage development of a well-integrated nonpoint management plan.

WWEMA believes that with Congress, EPA, the industry, and public interest organizations working together, we will be able to continue to make progress in cleaning up the Nation's wastewaters. WWEMA's formal positions on future financing of the wastewater treatment program and enforcement are attached. Thank you for your attention to our comments and suggestions. I would be pleased to answer any questions.

Mr. Roe. I thank the gentleman.

Commissioner Ledbetter.

Mr. Ledbetter. Thank you, Mr. Chairman. I appreciate the opportunity to appear before your committee again. We always appreciate the courtesies of the chairman as well as my own Congressman from Georgia, Congressman Rowland, and I appreciate your courtesy in working us in.

I am accompanied this morning by Robbi Savage, the executive director of our association, the Association of State and Interstate Water Pollution Control Administrators.

You have been given a copy of our written testimony, and I request that you include that as a part of the record.

Mr. Roe. All formal testimony will be included in the record.

Mr. Ledbetter. Therefore, I will just be very brief in talking with you and members of the committee this morning about some points we would like to address. I have provided to you in one page a summary of those points that should be before you this morning.

One of the things I would like to touch on, since you already know our association, is that we, in the States, are the officials in this country responsible for administering the Clean Water Program. We appreciate the strong support that you and this committee have given us over the years as we've gone forward with that program.

We've had a recent meeting of our membership. We have a consensus on these positions that have been provided to you and the testimony we've presented. We had a unanimous vote at our February meeting, here in Washington, so I am presenting to you the perspective of the States.

The recent USEPA testimony you've heard and the position that the administration has taken on the Clean Water Act is very much of concern to us. We disagree strongly with the direction the administration seems to be headed with this program. It would be very disruptive; it would tend to terminate much of the work that we have been doing, with your support and guidance over the years, so we hope that you will examine very closely the direction in which they seem to be moving and that you will, instead, look at some of the recommendations that you are hearing from some of the speakers this morning, as well as some of the points that we would like to make.

First of all, we concur with and appreciate the concept of the revolving loan and alternative financing program that you've included in H.R. 8. We think that is the direction in which to move this country, and our membership supports that concept. We would ask that you look at making some modification of that. Because of the difficulties that we have in the States from year to year in balancing the State budgets, to require a match without any flexibility could very well preclude a State from participating in the program in a given year. If the economy is slow, or a certain State—or a number of the States—are in a recession, and all of a sudden they cannot match, then we're no longer participating in this program which is so essential to all of us. So if you feel a match must be provided in the revolving loan program, we would urge you to look at maybe averaging that over a 3 to 5 year period or give us some flexibility instead of just mandating an up-front match in the loan program.

The other thing—we would like clarification in the bill that when repayment comes back into the State, that the funds can be loaned for future clean water projects in the State. We are in accord with the concept of going down the priority funding list, and we think that's the approach that should be used. All the States have developed a priority funding list to address compliance with the Clean Water Act. But as those funds are repaid to the loan program, then we should be clear, in the bill that we can use those funds in future years for other authorized purposes under section 216 of the act. So we would ask for clarification on that.

The other thing that we would urge you to look at, and you have also heard this from other members of this panel this morning, is to enable the States to use the funds under section 207, the current Construction Grant Program funding. We request that you enable us—if a State so wishes—to move some of those funds into our Revolving Loan Program. Many of the States are now prepared to do that. In my own State, we would like to do that; we have strong support from our local governments to do this because they see the value and the importance of beginning to build the revolving loan fund so that, in future years, we will have a substantial amount of money in the State revolving loan fund. As we have those payments come back to the fund it will increase in the future to a substantial amount. The sooner we can start that program of transitioning more money into the loan fund, the sooner we can get on with the program and the more support we think we'll have, a greater incentive for the States.

A few other changes that we would like for you to look at related to construction grants would be to modify section 14 for this reason. Section 14 requires the local government to certify that the project that they are building would meet the requirements of the act. Unfortunately, what many of us in the States have encountered in recent years, especially where we have advance wastewater treatment in a project, is that the Federal EPA has dictated certain changes. The State and local government, many times, have not agreed with those dictated changes coming out of headquarters, EPA. Therefore it is unfair to the local government to turn around and require a certification that a project that is not consistent with their design and their consultant's design will meet the requirements. So we would ask that you exempt that certification for those projects.

Also, section 15(a)(1) needs to be looked at a little closer in that it requires local governments to address nonpoint source in their community. Now, in many of our smaller communities you may have nonpoint source problems that are agriculture or some source that that local government does not have any control over, so we would ask that some flexibility be given if the nonpoint source problem is not related to the local government's control, that they not be precluded from getting a grant and going forward with their project.

And finally, as far as the construction grants part of the bill, section 17(a) requires the USEPA-conducted audits to be paid for out of section 207 funds. We would ask that you delete that. We are seeing more and more things being assessed or tagged to section 207, and that's just eroding away more and more of the available funds for municipal systems to continue with the projects that are so greatly needed.

Finally, I have three other suggested changes to the bill that we think would make it more workable for those of us who are trying to administer the program.

Amend section 5 so that the States, not EPA, would have to identify those waters that have the problems with the toxic pollutants causing water quality problems. The reason I say that, we are the entity with the information. The present language requires EPA to identify those waters; they don't even have the current information on those waters. We are monitoring the streams; we have the information. We would suggest that language require the States to go through and identify those waters and to put into place the program, then, to address those through our permit programs and other regulatory steps that we would need to take. So we would ask that you look at that.

We would also ask that you look again at section 23 regarding existing pretreatment programs. We understand, of course, that this is a very controversial subject, but we have many communities across the country that have well-operated existing pretreatment programs. And if they're getting the job done and protecting the receiving waters and the integrity of the wastewater treatment facility, we would suggest that they be allowed to continue to do so without disruption.

Another subject that we are greatly concerned about because of the tremendous demand on our resources and our personnel in the States relates to storm water permits. As you know, recent court decisions have mandated we issue permits to all storm water runoff, and we have thousands of small parking lots that are not contributing significantly to water quality degradation across the country. We would ask that you change the language to make it very clear that we only need to write permits for such storm water runoff if it's interfering with the designated water use in a particular water body, or if it's related to some industrial activity that has the potential for contaminating. Many of us are already writing storm water runoff permits for industries that have the potential for contaminating; we already are requiring monitoring. We, in many cases, have holding ponds and require treatment, if the monitoring dictates the need for it.

So in summary our association, Mr. Chairman, recommends the few changes to H.R. 8 that I have discussed with you and the committee this morning. We think that the direction you are going with H.R. 8 is correct. We would support the flexibility and clarification that these changes would provide to the bill, and ask that you go forward with prompt reauthorization of the program; that you continue some of the things you have in the bill, like the section 106 State management grants with the current authorization. We support the meaningful transition to the perpetual loan program that I've already discussed.

And I'd like to touch on the 10-year permit versus the 5-year permit. There seems to be a great deal of confusion and misunderstanding on that point. A typical State at the present times reopens permits as effluent limits are established by USEPA, or as water quality problems develop. Looking at a typical State, we find that as many as 60 percent of the permits have been reopened for industry. In my own State we have reopened that many permits and changed the conditions to address the effluent limits as EPA has promulgated them. We read the law and requirements of the program now to require us to do that. We think your language even more strengthens that requirement.

The other part of that issue relates to the fact that we have many small communities throughout this country. Most States have 80 percent, plus or minus, small dischargers, small communities, motels, et cetera, along interstate highways that we have under permit. Those 80 percent, plus or minus, dischargers have no toxics; yet, we are spending a great deal of our personnel time rewriting those permits every 5 years. We support your concept of letting us write those every 10 years, and then spend our time writing better permits for the major dischargers, and especially those with potential toxic pollutants. It's just wise use of the resource and sound environmental management. We regret that all of a sudden this 5 year versus 10 year issue seems to relate to condoning toxic pollutants. Five years is not acceptable, as far as we're concerned. If we have a problem out there, it's very important that we address it now, that we not wait 5 years. We would never propose to wait 10 years. So we think that it will enable us to be better environmental managers, to enable us to write the 10-year permits with a mandated reopening any time there are effluent limits established or water quality problems are surfaced in the receiving stream.

And finally, on the nonpoint source program, we think the language that you have would certainly assist us in moving forward with a meaningful nonpoint source program. At the same time, there is a need for some stronger direction of many of the Federal agencies that are involved with programs, that can be involved with the nonpoint source. And we would hope that some language could be added to make it more clear that they are to work jointly to assist us in getting on with some of the nonpoint source problems, particularly related to agriculture.

Thank you, Mr. Chairman. I appreciate your courtesies.

Mr. ROE. I thank the gentleman.

Mr. Westcott.

Mr. WESTCOTT. Thank you, Mr. Chairman.

I am here today on behalf of the Associated General Contractors of America. AGC represents 32,000 firms employing approximately 3.5 million construction workers, so we represent a pretty good segment of the industry.

I appreciate the opportunity to testify before this committee on the important topic of the Clean Water Act and the reauthorization of the EPA Construction Grants Program.

Although great strides have been made, the job is not yet complete. EPA has reported, as a result of its 1984 Needs Survey, that over $100 billion will be needed through the year 2000 to construct the wastewater treatment facilities needed to meet clean water goals. Projects eligible for Federal funding total over $35 billion. Past levels of funding have not been adequate and, certainly, recent funding levels at the $2.4 billion limit annually are even less than adequate to do the job. It is clear that funding must be increased at all levels—Federal, State, and local—to meet these needs.

AGC believes that the administration is being unrealistic in thinking that with a demonstrated need for $100 billion, the clean water goal for the year 2000 can be met without strong and continued Federal funding.

There is an urgent need to address the rebuilding of our Nation's infrastructure. Many local governments just do not have the basic infrastructure, such as water and sewer systems, needed to serve industry. We cannot afford to procrastinate on this issue any longer. Failure to meet basic infrastructure needs frustrates not only the achievement of clean water goals, but also severely threatens economic growth. No clearer example exists than the recent Boston situation. The inadequacies of wastewater treatment facilities in the Boston area and the resultant pollution of Boston Harbor are well-known. What is less well-known is the enormous volume of economic activity dependent on Boston's outmoded and inadequate wastewater treatment system. If in December 1984 a proposed retroactive sewer hookup moratorium had been implemented, it would have impacted on $3.2 billion in economic activities and would have had a ripple effect on over 91,000 jobs.

Basic infrastructure needs must be met or severe economic dislocations will occur.

AGC supports the level of funding called for by H.R. 8, and that is $3.4 billion annually for fiscal years 1986 through 1988. AGC believes as well that similar levels of funding, subsequent to 1988, be eventually provided for to honor the commitment made when the 1981 amendments were enacted.

AGC also supports the provision in the bill which provides for State water pollution control revolving funds.

AGC further recommends that the intent of the 1981 amendments be expanded to delegate total management of the Construction Grants Program to the States, with EPA continuing management oversight, enforcement, and auditing functions. States should be allowed to establish project priorities consistent with water quality goals. Congress should also reemphasize strong Federal enforcement of effluent discharge permit requirements, consistent with the EPA municipal enforcement policy calling for compliance in 1988. Effective enforcement of this policy will provide the needed impetus to municipalities to make the necessary capital expenditures.

Mr. Chairman, AGC commends your initiative in introducing this legislation and heartily endorses its objectives. AGC does, however, have one serious concern regarding section 59 of H.R. 8, that would amend the Clean Water Act by adding a new section 203(f) to provide for "turnkey" projects. States would be allowed to use up to 20 percent of their construction grants allotment for grants up to $8 million for these types of projects. This provision would entail the use of design-build method of procurement. Like NUCA, AGC opposes the use of design-build contracts by public bodies, and in that instance, it disagrees with WWEMA. Although this contracting method has been used successfully in the private construction market for years, it is inappropriate for use by public bodies. The design-build contracting method undermines the integrity of the competitive building system. Federal, State, and local governments are, for the most part, required to award contracts for construction services to the lowest responsive, responsible bidder, assuring that the highest quality product is provided at the lowest possible price. At the same time, all bidders are afforded the same opportunity of being awarded the contract. The low bidder's efficiency is rewarded and measured by an objective test—the lowest responsive bid.

The design-build contracting method introduces a subjective element into the award process. Unlike the competitive bid system, where all bidders bid on the same set of plans, each design-build firm submits its own proposal and concept of the Government's basic outline for the project. The public agency then must judge between different proposals for the same project. AGC believes that the subjective judgments that must be made between the different proposals could potentially corrupt the system. I would note that many small communities would find it very difficult to take the time to make a cost-effective comparison between the various design-build projects, as well.

The design-build contracting method also leads to reduced competition. There are only a limited number of construction firms that have in-house capabilities or design firms which have construction capabilities. Those that have these dual capabilities are, for the most part, very large firms. Wastewater treatment projects are normally custom-designed to suit the requirements of each locality. The initial cost of preparing a "turnkey" proposal would be, therefore, prohibitively expensive to the average general contractor. Therefore, the use of design-build contracts limits the number of firms able to compete for the work. Most small construction firms would be excluded from this competition, and this would not serve the public's interest.

In the interests of assuring taxpayers that their tax moneys are being expended in the most economical and efficient manner possible, AGC urges the deletion of section 203(f) from the bill and recommends speedy enactment of the revised legislation.

Thank you very much, Mr. Chairman.

Mr. ROE. I thank the gentleman.

Mr. ROWLAND. Mr. Chairman.

Mr. ROE. The gentleman from Georgia.

Mr. ROWLAND. I have some questions I wish to submit. I ask unanimous consent that I be allowed to do that.

Mr. ROE. No objection. So ordered.

Mr. ROWLAND. Thank you.

[Questions submitted by Mr. Rowland and responses received from ASIWPCA follow:]

QUESTION FOR THE ASSOCIATION OF STATE & INTERSTATE WATER POLLUTION CONTROL ADMINISTRATORS

(Requested by Congressman Roy Rowland)

Question 1. In your testimony you indicate general State support for transitioning the construction grants program for publicly owned treatment works (POTWs) to State Revolving Loan Funds and/or alternative financing methods. To expedite this transition, what changes would you recommend for H.R. 8?

Answer 1. The States have developed a position through the Association of State and Interstate Water Pollution Control Administrators supporting transitioning the construction grants program for publicly owned treatment works (POTWs) to State Revolving Loan Funds. To expedite this process it is recommended that H.R. 8 be amended to provide that, at the discretion of the State, up to one-half of the funds appropriated under Section 207 are available to the State for use in the State Water Pollution Control Revolving Fund authorized in H.R. 8.

Question 2. You briefly discussed the requirement to issue stormwater permits which the States and EPA are facing. What is an approach that would be workable and still address any significant pollution sources?

Answer 2. Stormwater permits for all parking lots of such facilities as churches, schools, shopping centers, etc., will require excessive personnel time of State employees, as well as Federal, and impose economic burdens on the owners without measurable water quality results. Permits should be required only when the stormwater discharges are determined to impair designated water use or when such could be potentially contaminated by industrial activities. This approach would not require permits nor monitoring of stormwater runoff from such areas as parking lots of churches, schools, shopping centers, etc. It is essential that Congress amend the Clean Water Act to clarify this matter because of recent court decisions mandating all such areas be permitted.

Question 3. The Senate Subcommittee on Environment, as well as the EPA, have developed new allotment schemes for the distribution of construction grants to the States which reflect major shifts from the current allocation system. Since the House has considered such changes disruptive to the effective management of the Clean Water program, what are the views of the States' organization, ASIWPCA, on this most important subject?

Answer 3. ASIWPCA members have generally concurred with your position that the existing allotment formula has been effective and resulted in major improvement in water quality throughout the nation. Therefore, the Association members have recognized the value of continuing the existing allotment formula to minimize disruption of the Clean Water Program. The State of Texas has been an exception to this position and has worked actively to change the formula. To expedite reauthorization the Clean Water Act and minimize disruption and/or extensive delays in the program, the approach contained in H.R. 8 as of this hearing (April 30, 1985) seems most appropriate.

Question 4. I am aware that ASIWPCA has devoted much time and energy developing a POTW funding project that apparently is being abandoned by EPA. Can you comment on your involvement in this project and the change in support you are receiving from EPA?

Answer 4. ASIWPCA participated in the US EPA projects throughout 1984 which resulted in the publication of an extensive report by US EPA regarding future funding of Publicly Owned Treatment Works (POTWs). In addition to ASIWPCA, numerous other organizations assisted and participated in the study and development of the report. The EPA report recommends continuation of Federal funding for the Clean Water Program; transitioning from a grant to loan program; and phasing Federal financial participation out over a ten year period. ASIWPCA and numerous others have supported the report. However the Administration has decided to disregard the extensive study and report and to kill the program. Under the Administration's approach no local government's project could be eligible for Federal funds after September 30, 1985, unless the project is already under construction. The States are very concerned about the Administration's approach and we urge the Chairman and this Subcommittee to proceed with the concept in H.R. 8. However, we do request further consideration of our recommended changes to H.R. 8.

Mr. ROE. Mr. Haun.

Mr. HAUN. Thank you, Mr. Chairman. I apologize for being late; someday I'll tell you the story of why that had to be done. I won't waste the time of the committee this morning.

I am J. William Haun, vice president of engineering policy for General Mills. I am here today speaking on behalf of the clean water project of the National Environmental Development Association, of which I am the chairman. Seated with me today is Mr. Jim Sheets, who is the research director of the Laborers' International Union of North America, and I hope somewhere in the room is Jeff Zimmerman, who is the director of regulation and compliance, and counsel for environmental health and safety of Occidental Petroleum Co., and is chairman of the technical committee of our project.

This project is a coalition of industry, the Building & Construction Trade Unions of the AFL-CIO, and some agricultural organizations which seek to bring balance to policy decisions relating to the Clean Water Act. Our project's members believe it is possible to have both a healthy and clean environment and a strong economy.

We urge the committee to amend the Clean Water Act this year in order to, of course, achieve effective water pollution control, or more effective; to accelerate the process of cleaning up the waters, and reduce the tangle of redtape which interferes with the above goals and results in undue cost to the public.

I have a rather long statement which I'd like to place in the record, Mr. Chairman——

Mr. Roe. Without objection, so ordered.

Mr. Haun. We will summarize this orally, if we may, and I'd like to first introduce Mr. Sheets to speak on the subject of the Construction Grants Program.

Mr. Roe. Mr. Sheets.

Mr. Sheets. Excuse me, Mr. Chairman. My name is James R. Sheets; I am research director of the Laborers' International Union of North America, and I'm testifying today on behalf of the building and construction trades department, as a member of the NEDA Clean Water Project.

To save the committee time, I will submit my written statement and just briefly summarize it here.

The building and construction trades department is deeply concerned with the continuance of the Construction Grants Program. Not only does it provide some 80,000 to 90,000 jobs for our members, but it is, we think, the most vital and basic part of the Clean Water Act and the one thing that will lead to its eventual successful meeting of its objectives.

We are certainly gratified that your committee and yourself have recognized the inadequacy of the $2.4 billion financing, and that you have raised it to something approaching a more adequate level. A total of $108 billion worth of needed construction was projected by the year 2000 in the EPA's latest needs figure. We would estimate that that would represent a future Federal investment of approximately $34.4 billion, and we would hope that this money will be available throughout the life of the program.

Municipalities, in spite of some surges of surplus occasionally, clearly are not able to meet the obligations of being totally in charge of building these programs, and serious problems result if the POTW's are not built—not only for the expansion of local municipalities and for services of homes, but for services of new industry. If a municipality cannot provide water and sewer service to a proposed new industry, it simply cannot grow and, in fact, begins to die on the vine.

We would certainly consider with the committee alternative financing methods that have been proposed. Our concern in this regard is that alternative financing is a long-term proposition that will require a great deal of consideration and substantial legislative changes. In the meantime, we would like to see the program going ahead on the Federal financing plan that is already in place—the Federal and State financing plans that are already in place. A revolving loan program is a sound addition to the financing arrangements available through EPA.

Therefore, it is our belief that a construction grant and revolving loan program working in concert over a period of time can provide badly needed funds to build the POTW's that our country's infrastructure will require if the economy is going to continue to grow while maintaining our continued commitment to a clean and healthy environment.

On behalf of the building trades, Mr. Chairman and members of the committee, I would like to thank you for the opportunity to come here today.

Mr. ROE. I thank the gentleman.

Mr. Haun, do you have something more you want to add?

Mr. HAUN. If I may continue, Mr. Chairman, I'd like to briefly comment on four subjects. One is the permit life issue; one is compliance deadlines; criminal penalties, and local pretreatment. There are some other subjects in the testimony which I hope you will have a chance to read.

Since 1969, beginning with the Corps of Engineers permit program under the Refuse Act, the discharge permit system has been continuously in backlog. It has been in trouble through four administrations, a whole range of administrators. With all the changes that have occurred, the Agency has never been able to be current on the issuance of permits.

We think that the suggested change to a 10-year permit life, as was mentioned by the ASIWPCA representative a minute ago, is one way to begin to address that problem of timely issuance of permits and timely review of those permits. Objections to this longer permit life are usually based on what we think are fundamental misperceptions. There are three such misperceptions—one, that all permits will be automatically granted for 10 years; that permits can't be reopened under existing law, and that permit authorities won't use their authority to reopen. NEDA believes that these criticisms are not founded in real experience with the permit program. We find that the present discretionary authority is being used, in fact, and we are aware of some permits that have been issued for periods as short as 18 months, initial permits, because of special conditions that surrounded that particular permit—the permit writer decided they didn't want to venture any further than that, and wanted a chance to review it again.

I have with me in my bag an example of a permit draft which I received last week from our local State authority which has three separate toxic reopeners built into it, all at the discretion of the Agency. We would fully expect them to be exercised; we would not object to those, and we think that is a very realistic situation.

We think there are some other things that could be done to simplify the permit program. We mention those in the testimony.

It's generally understood that there is a very serious problem in complying with the deadlines set forth in the act. I don't need to review all that history here today; we've been through that many times. Simply stated, it's not possible to comply immediately with requirements which have not been established, or where there is no reasonable time to install pollution control technology—limitations which have only recently been promulgated.

We believe that dischargers should be allowed a uniform period of time to comply with BAC or BCT requirements after EPA issues the applicable guidelines. If no guideline is available, the establishment of effluent limitations on an issued BPJ permit—best professional judgment—would also suffice to begin a compliance period.

Our experience shows that the 42-month period proposed in H.R. 8 is about the time required to design, construct, and start up these often-complex new wastewater systems, and we support that provision in the bill as a reasonable approach to the problem.

Regarding the criminal penalties section of H.R. 8, we would like to commend the legislation for including an affirmative defense clause, for compliance with all applicable Federal, State, and local requirements with respect to the introduction of pollutants into a sewer or publicly owned treatment works. We understand these requirements are designed to protect the operations of the sewer system and its treatment works. In all cases we know about, however, the local sewer ordinance incorporates severe sanctions, including suspension of service, if the indirect discharger is believed to be responsible for damage to or failure of the POTW. Where the indirect discharger is meeting all of the requirements regulating his use of the sewer system, we believe that discharger should not be subject to prosecution as a matter of simple, fundamental fairness.

An issue that received extensive discussion in the last Congress related to a legislative amendment that would have allowed publicly owned treatment works who have gone the extra mile in developing pollution control programs to control their own pretreatment programs. In some cases, the pretreatment of a discharger's waste before it arrives at the POTW makes sense; in other cases, where the POTW can safely treat such waste, it does not. As interpreted by EPA, the act does not have the flexibility to acknowledge the difference. The result is redundant treatment of waste at great and needless cost to industry and the public, or not enough treatment. We believe—and we support the ASIWPCA statement earlier this morning—that there are local POTW's that have developed treatment and pretreatment programs that meet Federal standards, and those POTW's should be recognized for their accomplishments. Local treatment works should be allowed to run their own pretreatment programs as long as protections are included that will ensure that local programs achieve water quality improvements equal to those achieved under the Federal program. We support an amendment that would provide qualified POTW's with the flexibility to implement their own pretreatment programs while keeping the Federal program in place for those POTW's which do not qualify to develop and implement their own program. We think local operations can do just as good a job as the Federal Government, if not better, in developing and carrying out a pretreatment program.

With that, Mr. Chairman, I thank you very much. As a matter of comment, I might just say that since 1971 I've been appearing before this committee and we appreciate your full and fair hearing of all sides of these controversies, and I want to express our appreciation.

Mr. ROE. I thank the gentleman. We know you've been appearing and have been a great help to this committee over the years, and it's turned out to be many of us—our life's work, as they say.

I want to thank the panel for a good, even-handed and substantive presentation. I think you summed up the issues as we see them, too, and we appreciate your recommendations.

The Chair recognizes the gentleman from Minnesota.

Mr. STANGELAND. Thank you, Mr. Chairman. I, too, want to thank the panel and commend them. I think that we're only going to get to the solution of the problem by a full and fair and open discussion from all points of view and by an attempt, to the best of our ability, to write something that can be acceptable to all and move along the lines that we started out toward in 1972—to aim for truely clean water for the entire country.

Mr. Ledbetter, are you familiar with a study—and I think you perhaps referred to it somewhat—the study by the National Wildlife Federation of State water quality programs, arguing that the 10-year permit program for reopeners for new or revised toxic pollutant standards or water quality standards will not work? The study reportedly indicates that States either cannot or will not reopen permits, once issued.

Are you aware of the study, and could you comment on its accuracy?

Mr. LEDBETTER. Thank you for the questions, Mr. Stangeland. I'm generally familiar with it, although they haven't made the survey available to us. We are aware that they made some telephone calls to some of the States. I know in their sketchy information available at this time, there is a question mark by my State so I don't know whether they tried to call or not.

The point I would make is that they argue, in their previously-submitted testimony before the Senate and some of the information that has been publicized, that it's a matter of toxicity being allowed for 10 years versus 5. And as I stated earlier, 5 years is not acceptable either for those of us who are responsible for managing these programs. We regret that the Wildlife Federation tends to focus on that point when we could write much better permits by putting our permit writers to work on the major dischargers and not having to go back and look at these small dischargers. Most of our States are averaging somewhere around 80 percent small dischargers with no toxics, and yet we're having to come back and write those permits. Many of us have done the job of keeping our permits current. Out of 38 States administering the program, about 30 of them at the present time are current with their permits; there are seven or eight States, I think, that are trying to catch up. But we would write better permits and have more time to reopen those that need to be reopened—and I already have cited some examples of typical States reopening as much as 60 percent of the industrial permits;

many of us are reopening as many as 25 percent of our municipal permits because as we do the pretreatment program, we have to come back in and reopen those, as well.

Mr. **STANGELAND.** Well, we have requested from the National Wildlife Federation further information on the survey as to the States—as to the staff level of the telephone respondent, and when we get that information we might well like to have you look at it and comment on it. Hopefully, we will have extensive knowledge regarding the validity of the survey at that time than we have at the present time, and will be better able to determine the accuracy of that survey.

Mr. **LEDBETTER.** Thank you. We'd like very much to do that; if you could provide Ms. Savage with that information our association would respond, sir.

[The following was received from ASIWPCA:]

ASSOCIATION OF STATE & INTERSTATE
WATER POLLUTION CONTROL ADMINISTRATORS,
Washington, DC, April 23, 1985.

DEAR SENATOR CHAFEE AND MEMBERS OF THE ENVIRONMENTAL POLLUTION SUBCOMMITTEE: As your Subcommittee prepares to mark up the Amendments to the Clean Water Act, the Association of State and Interstate Water Pollution Control Administrators would like to express our appreciation for the opportunity to appear before you and participate in the legislative process. Also, we wish to clarify an issue related to the States' national pollutant discharge elimination system permit programs (NPDES), on which other organizations have directed their attention during the recent hearings. The major issue seems to relate to the five-year permit life versus a ten-year permit life and the discharge of toxic pollutants.

During our Association's Mid-Winter Meeting we determined that the States strongly support the reopener requirement for permits when effluent limitations are promulgated by US EPA for toxic pollutants or when water quality standards are violated in the receiving waters. ASIWPCA members disagree with the National Wildlife Federation's statements regarding the States unwillingness to reopen permits.

The primary purpose of the State support for ten-year permits has been to reduce paperwork and the time required for the numerous small dischargers. ASIWPCA members would much prefer to direct their efforts towards the major dischargers in their States.

The following represents a typical State's permit program:

Type of dischargers	Total permits	Major	Minor
Municipal	500	109	391
Industrial	450	61	389
Nonindustrial			250

While Maine was referred to by the National Wildlife Federation as a state unwilling to reopen permits, recent communications with the State of Maine have confirmed that they do reopen permits under the Clean Water Act. Also, under other Maine environmental programs, the State uses ten-year permits and reopens those as conditions require.

While the National Wildlife Federation may advocate five-year permits as essential to control toxicity, the Association cannot condone toxicity for any length of time. Five years of adverse environmental impacts is no more acceptable to the States than is ten years. No credible State program can stand idly by while circumstances change or toxicity problems are identified. We interpret the Clean Water Act and Senate Bill S. 53 to require States to be ever vigilant against threats against the environment.

States have a proven track record for effectively utilizing reopeners. Vermont, Minnesota, Texas, Georgia, Maine, as well as numerous other States, have effectively used reopeners and will continue to do so. In fact, they are required by US EPA regulations to do so. Effluent guidelines have required the reopening of many industrial and municipal permits for direct and indirect dischargers. These include the textile industries (chromium, sulfides, phenols) pulp and paper (pentachlorophenols and tricholorphenols), and electroplaters (copper, lead, zinc).

While States do not advocate indiscriminate use of reopeners, they are essential to the maintenance of a strong, effective NPDES program. Our survey results indicate on the "average" and NPDES delegated State will have:

90 primary industrial dischargers—i.e., discharging one or more of the 129 priority pollutants,

Two-thirds of these industries will have been reopened and reissued permits due to effluent guidelines promulgation or other significant changes, etc.

Of approximately 110 major municipal permits, 28 (or 27%) will have been reopened to incorporate pretreatment requirements.

The law requires water quality standards (WQS) to be reviewed and revised once every three years. States have taken this requirement seriously and have long term schedules of WQS activity, based on environmental need. WQS decisions (to be factored into permits) must be made far in advance of permit issuance.

In summary, the States take seriously their responsibilities for protecting this nation's environment. This has been demonstrated by ASIWPCA and it's member States on numerous occasions with our detailed national implementation strategies which include: 1) recommendations for an improved national Clean Water Program, 2) toxicity elimination and management strategy, 3) America's Clean Water, the States Evaluation of Progress, and our newest effort on Nonpoint Sources of Pollution.

Based on this commitment, and years of State program management experience we encourage the Subcommittee to recognize that ten-year permits will strengthen our water quality program.

We appreciate your continuing commitment to a strong clean water program and we respectfully request your consideration of our earlier testimony and the information provided in this letter.

Most sincerely,

ROBBI J. SAVAGE, *Executive Director.*

Mr. STANGELAND. Another question, perhaps to Mr. Ledbetter and Mr. Perry and whoever else may want to respond. Certain reauthorization bills under consideration contain language prohibiting or otherwise restricting downward adjustments of NPDES permits. The provisions are sometimes referred to as "anti-backsliding" provisions, and I'm wondering what the view is of some of the panel concerning whether this act should be amended to include those kinds of provisions.

Mr. Ledbetter, you may want to start out, and Mr. Perry, if you want to comment on that as well and any of the other panelists who would want to comment.

Mr. LEDBETTER. Well, I think the real key here is resource management, Congressman. When we have developed the wasteload allocation along the reach of a stream, we have assigned a pollutional load to the permit or permits for the municipalities and industries along that particular stream. So once we write those permits and we've assigned that pollutional load to protect the receiving water body, it's important that we not have an automatic change or backsliding, whatever the terminology might be. It's important that we focus instead on resource management, and if any change that would allow an increase in that pollutional loading would result in violation of water quality standards or, just as importantly, use up all the available capacity of that stream so that the municipalities along there would no longer have the potential for any growth, then we would have a significant problem by any backsliding.

So I think that the key thing here is to focus on resource management and allow the States the flexibility to manage that resource to be sure that we protect the receiving water body.

Mr. PERRY. Yes, Mr. Stangeland. The federation agrees very much with what Mr. Ledbetter has said. I think it's unfortunate that this has been called antibacksliding, that managing resources is what is important and getting the most treatment, putting your dollar where you get the most treatment.

We oppose lowering water quality standards, but we don't think that we should treat simply for treatment's sake.

Mr. STANGELAND. Well, I think that's the concern we have as well, and I don't think we're talking about lowering water quality standards but rather readjusting, if you please, the permits that may have been issued initially before the development of a standard. These permits are developed on the basis of the best professional judgment if we find later on that the permit is far more stringent than other permits written as a result of the standards ultimately developed. Shouldn't there be some provision for adjustment provided?

Mr. PERRY. That's right. Water quality is what's important, maintaining water quality. And there is nothing magic about a permit that was written immediately following the enactment of the 1972 amendments, or at any time; maintaining water quality is what's important.

Mr. STANGELAND. I have one more question, Mr. Chairman, and then I would yield to some of the other Members.

This question is to Mr. Ledbetter, but again, I would like to ask Mr. Perry, Mr. Haun, and whoever else may want to respond. You testify in support of amending the act to allow local POTW's to have effective local pretreatment programs, to be allowed to continue to operate under those programs and not under national categorical standards where it can be demonstrated that no water quality problems exist.

I guess the first question would be, in your opinion can that kind of a provision be administered? And if so, how would that amendment be crafted? What protections should be included to assure that the new authority is not used to frustrate or delay achieving Clean Water Act goals?

Mr. LEDBETTER. Well, Congressman, we're already using that approach in many of the States, and we have for many, many years, in that we require the local government to adopt a sewer use ordinance that establishes specific limits for toxics. In many cases, we have only one or two industries in the community that need to be addressed anyway, because if you look at the industries on some of the smaller systems you only have maybe one or two in that community. So we have written permits, pretreatment permits, already, either the State or local government. In our State we have a break between the 5 million gallon per day system; below that the State writes the permits in those communities, and above that the State requires the local government to write the permits for pretreatment. So there are permitting programs in place in many of the States that give you the administrative or regulatory approach to requiring an effective pretreatment program.

Now, to come back and start trying to put categorical standards in can be disruptive, especially since many of those industries really don't fit into a particular category. They may have a mix of things to where a categorical standard only addresses part of their waste, and so it still is a very difficult process to try to apply. So we think the approach we're using can be just as effective. What we would recommend is the language to give us that flexibility, as well as the current approach. We're not saying to disregard the current approach of the categorical standard, but give us that flexibility when we demonstrate that the job is being done.

Mr. STANGELAND. Mr. Haun may want to respond.

Mr. HAUN. Yes, I'd like to support everything Mr. Ledbetter said. When you add to this the burden—EPA has had the authority to put a pretreatment system into place since 1977 under categorical standards. They will tell you repeatedly that they simply have never figured out how to do it within any reasonable amount of resources or the number of permits that had to be processed—everything became an impossibility. Our experience, as an industry dealing with local POTW operators, is that these people are basically pretty knowledgeable and that they know their system and that they know it extremely well, and that for them to control the things that go into their system is, in the long run, the more efficient and the more effective way of gaining the water quality that we're all seeking.

Mr. PERRY. We would agree with both positions that have been expressed. We talked about getting old testifying on the Water Pollution Control Act amendments. We certainly are all getting old testifying on pretreatment. It seems impossible that we are still talking about pretreatment after all these years.

Pretreatment has got to be administered at the local level, and it can best be administered from the States to the local levels. There were pretreatment programs in place long before the 92-500, and there were good pretreatment programs in this country. And it seems just foolish to consistently try to upset or rewrite all of these programs. There are places that need help, and I think the States can see that help is given. But to try to write pretreatment programs at the national level is just an impossible situation, and we've seen that through the years. It hasn't been done.

Mr. STANGELAND. Anyone else care to comment?

If not, thank you.

Thank you, Mr. Chairman.

Mr. ROE. I thank the gentleman.

The distinguished gentleman from Minnesota, Mr. Oberstar.

Mr. OBERSTAR. Thank you, Mr. Chairman.

I want to thank the witnesses for their presentations, for the very extensive and detailed documentation and the contribution that they and their respective associations have made to the clean water effort over a period of many, many years. You have been generally supportive of this legislation; you've come to this committee, either individually or as associations, repeatedly in support of the goal of clean water, and we do appreciate that. Mr. Haun, in particular, I know you've contributed a great deal of your time for yourself, for your association, for your company.

Earlier, Mr. Perry, you said that we don't want to "treat for the sake of treatment." Could you define what you mean by that? What is that boundary line? What regulations, what provisions of law may get us to that point, but first explain what you mean by "treating for the sake of treatment?"

Mr. **Perry**. Well, one of the things that the act did, 92-500, was to establish standards for the requirement for secondary treatment, a major change from trying to administer a program on water quality standards. The Federation supports that, and we recognize that this is probably the only way that an effective national program can be carried on. However, this can be carried on and on so that you are simply treating because there is a national standard that says you must treat to a certain level, that water quality becomes a secondary issue. And in the end we are treating to maintain—to improve—water quality, and if the treatment that you are doing is not helping water quality, is not improving water quality, not maintaining water quality, then you are treating simply for treatment's sake.

Mr. **Oberstar**. Yes—well, you're still describing and sort of rephrasing what you said earlier. What specifically can you describe for me that you have in mind in existing regulation that requires an industry group or an individual company to treat merely for the sake of treating?

Mr. **Perry**. I think at the time I was talking about—I hate to keep using "backsliding" because I don't like that phrase—but the idea of rewriting permits, whether they're rewritten for whatever reason. But we have no problem in permits being rewritten so long as the water quality is maintained. If they are rewritten to a lower requirement, and that's called backsliding and that's a negative, that's what I call simply "treating simply for treatment's sake," that because the permit is there it has some kind of a holiness about it, and because the permit is there it should not be changed; it should never be written down, regardless of whether——

Mr. **Oberstar**. Well, if we have the situation where there are three dischargers on a given stream, and BAT permits were written for those three dischargers, and the water quality has improved in that stream to the point where fish that no longer existed have now returned; there are a number of situations like this around the country. Are you saying, in that statement "treat for the sake of treatment", that because there may be some new technology that will at somewhat higher cost result in a cleaner effluent, that that new requirement should not be made a part of the BAT standard, that the companies should not be required to upgrade their discharge? I'm saying that because the water quality of the stream has improved demonstrably, that the stream now can accept a higher loading of effluent, whether BOD or other substances, and that more effluent should be permitted to be discharged?

I'm not quite clear what it is that you're getting at and whether, in fact, you are asking this committee to make any change in the law. I've heard the term used so often, that we want to "treat for the sake of treatment," piling costs on additional costs; and we all nod sagely and say, "Yes, we don't want to do that." I'm not quite clear what it is and what specifics those who make that statement refer to. And I think to be very clear about the discussion of where we're going with this legislation, we have to understand more precisely what is meant by this statement because there are a great many implications behind it and I do want to get to the question of the so-called backsliding.

Mr. **Perry**. Well, Mr. Ledbetter had given the example of wanting to be in a position to allow communities to grow. You don't want to have a situation where growth is not provided. But simply because a new process is developed which will improve a discharge, disregarding cost, I don't believe it is necessary that that process be put in place throughout the country just because the process has been invented. If the process is needed to maintain or improve water quality, and the water quality standards have been set on the stream as to what you're striving for, then the process needs to be used.

Mr. **Oberstar**. That's an argument for stability in the business.

Mr. **Perry**. That's right.

Mr. **Oberstar**. And I understand that and accept that, but if your permit has been signed and agreed to last week, and this week some new treatment technology is available, EPA should not be able to come back to firm X and say, "Sorry, we just signed that agreement last week; we want you to add this to it." You've got to be able to count on making certain capital outlays, on a timetable, and stick with that for a period of years. But next time that permit comes up, don't you think that, if there are technologies that have come on the market, that the company should upgrade its discharge?

Mr. **Perry**. If there is a reason to upgrade the discharge.

Mrs. **Johnson**. Will the gentleman yield?

Mr. **Oberstar**. Well, give me an example—I'll yield in a moment—but give me an example of what you might consider to be a reason to upgrade.

Mr. **Perry**. If the water quality standard that was set for that reach of the stream is not yet being reached, is not yet being met, or if for some reason it is decided to improve the water quality in that particular reach of stream and it is determined that it can be done, if all of the dischargers along this reach improve their discharge by 5 or 10 percent.

Mr. **Oberstar**. You're talking about a situation where a stream standard has been established in addition to BAT?

Mr. **Perry**. Yes. Yes.

Mrs. **Johnson**. Mr. Oberstar, will you yield?

Mr. **Oberstar**. I'll be glad to yield.

Mrs. **Johnson**. Thank you.

This is a very important point that my colleague, Mr. Oberstar, has raised, and one that interests me greatly. Is your point, Mr. Perry, that if the discharge is meeting the clean water standards, then if an improved technology comes along that is part of the next review of a permit, that they not be required to comply with that if indeed they are complying with the water quality standards? Is that your point?

Mr. **Perry**. Yes, ma'am. Yes, ma'am.

Mrs. **Johnson**. Second, is it also your concern, and do you have any reason to believe that it is the concern of those that you represent, that if a State determines that its standards were too high and that the scientific information currently available supports a lower standard and adopts a lower standard, still in compliance with Federal standards, that that be allowed and not considered backsliding?

Mr. PERRY. That's a little more difficult. In general terms I would say yes, it should be allowed, but I think that that's a much more difficult question.

Mr. OBERSTAR. That situation does not in fact exist—if you're talking about stream standards, they are set by States and approved by EPA, but EPA does not set them. The State sets the stream standard where you have a conglomeration of industries on a given segment of stream.

Mr. ROE. Will the gentleman yield?

Mr. OBERSTAR. Yes, I'd be glad to yield.

Mr. ROE. Well, I think there are two points involved here. One is the assumption that in any flowing stream that you don't have variables. You've got a whole plethora of variables involved in that stream: temperature, rainfall, added input, more water being taken out for water supply, so that the stream is not sacrosanct; it's changing all the time. And the assumption that's being made is that there's some base to work from on that stream to begin with, and I would probably suggest to you that that's probably not true. For example, in the northern part of New Jersey we have an extraordinary drought that's taking place, probably one of the worst that we've had ever in history, and it's developing to that right now where literally those streams are practically dried; there's practically no water flowing. It's almost like we were out in California with some of the variables that take place in those streams out there.

Now, it seems to me, that the receiving water's capability to absorb any more, which I think the gentleman is speaking to, is something that's changing all the time. That's one point. I think the second point is the growth factor with other facilities. Let's take that case of three particular plants located on a stretch of a stream where we have established water quality standards, and they are meeting their needs. Now the fourth one comes on the stream, or the fifth one comes on the stream. And suppose if we really don't keep kind of tight reins on those other two, those two added ones create greater demands. Isn't that going to indicate that those people that have been doing the right thing over a period of time, they could be forced into upgrading simply based upon the point of view that the State wanted that industry. I think that puts a little bit of context on what the gentleman and the gentlelady from Connecticut are trying to develop. The assumption that the committee is being arbitrary in its approach and is not looking at it technically is not necessarily so because in the whole water resources management program—and you used that terminology, which is a good terminology—it's a variable; it goes on continuously. And we know that we're dealing in a delicate phase of this whole programming now because the work that we've achieved at this point can be lost almost overnight if the intensity is not placed on the overall program. And the administration, as I see it—if the gentleman will yield further—is leaning toward only the regulatory. The danger of the regulatory, which is the point you made earlier, is that neither the States nor the Federal Government are doing an exemplary job at any stretch of the imagination on the permit program. They're just not doing it. I mean, I agree with you from the point of view that "treatment for treatment's sake" is not a desirable issue. But we found out that there were some 25,000 or 30,000 permits, or maybe more—55,000 comes to my mind—that were not even touched or updated because they didn't have the personnel to do it.

So I think that when we start developing the point and we use the jargon, and I think the point that the gentleman from Minnesota is attempting to establish, is what precisely do we mean? We all talk about these issues, but do we all mean the same thing when we speak to the issue of "treatment for treatment's sake" and/or "backsliding"?

So those are part of the concerns that the committee has and how to grapple with, how can we get them into law. And that's the concern that we have.

The gentleman from Minnesota.

Mr. OBERSTAR. The Chair, as always, makes great sense. Good insight into this problem on which he has labored for many, many years.

Let me move on to—I don't think we're going to resolve this point. I would like you to think that over and come back with some specifics of where, on a precise, actual case, you feel that there has been some regulation requiring treatment for the sake of treatment, and where there's an additional cost without a benefit received. I'd like to be very clear about that.

I also want to caution witnesses about my concern as I see this discussion going on, that there is a tendency—we saw this last week in some administration representatives—to slip back into pre-1972 act thinking, that we ought to treat a stream only to the point of what that stream can bear. In other words, going back exclusively to stream standards. That would be a terrible mistake, I think. It would repeal, in effect, the effort over a decade and a half that culminated in the 1972 legislation, which was a major step forward in cleaning up our lakes and streams. And the notion that we ought to be able to discharge into a stream what that stream can take is one, I thought, that ended in 1972. Our goal should be continually to improve water quality. And that comes to a point of discussion between 5 year permits and 10 year permits, that you were having with Mr. Stangeland a moment ago.

Tell me, what is the significance for industry of a 10 year permit as compared to a 5 year permit? A 10 year permit, with requirement for reopeners at the discretion of EPA dependent upon changes in technology, to require a higher degree of treatment compliance?

Mr. HAUN. May I speak to that, Mr. Oberstar?

Mr. OBERSTAR. Any one of the panel who chooses to respond. We're delighted to have you all. You've got such a collection of talent, we'd like to hear your comments.

Mr. HAUN. It's clear to me that many of the—as a matter of fact, in my company I don't have a single direct discharging plant, as far as process or sanitary waste is concerned. We use POTW exclusively. We still have them throughout our corporation; they tend to deal with things like cooling water, the overflow from the goose pond behind the office building. These are the kinds of discharges that are a part of the property, almost. They're going to be there for the life of the property, and they rarely will change, in any case. That's the kind of permit that we're really talking about, that can easily be written for 10 years because the chances of a new requirement coming along and affecting it are very remote. Having a reopener in there is a protection for the public, but it really doesn't affect us very much because we know that the thing is not likely to change. And I think that the Agency—if you could see the amount of paperwork and the amount of time and the number of telephone calls and letters that it takes to process a routine permit, about 18 months time goes by, for one thing, and somebody just has to keep track of all these crazy things in the process.

Mr. OBERSTAR. Now, Mr. Haun, you're talking about a new permit, a new application?

Mr. HAUN. No, I'm talking about a renewal.

Mr. OBERSTAR. Renewal? You're talking about renewal?

Mr. HAUN. Yes. Renewals, as well as new permits. They take a long time. The reason that they take a long time is that normally the permit writer who gets it after 5 years never saw it before, has to go back as if it were first principles, review the whole thing again; and the changeover in personnel, the cost in shifting and changing regulations means that each one of these is reviewed as if it were de novo, even though it is a renewal in many cases. So we think it's a lot of paperwork for, as we say, maybe 80 percent of these minor permits, that's taking up time that we don't need to take up.

Mr. OBERSTAR. That's a very, very important point of the renewal process. What steps do they make you go through that you feel ought not to be necessary? You know, EPA ought not to be making the program burdensome. You have a permit, you are operating, they know what you're doing; they ought not to have to—you ought not to be put through paces as though you're a new kid on the block, coming in with a new industry and a new permit.

Mr. HAUN. Well, I think you have to realize that renewal of a permit is basically—since the permit has expired, essentially—is not fundamentally different from the issuance of a new permit.

Mr. OBERSTAR. Is there a presumption that you're not in compliance? Is that the attitude that the EPA comes in with?

Mr. HAUN. There's a presumption that you have to prove that you will be in compliance, yes, and you've got monitoring data that you may have been filing over the last 5 years that has to be dug out, reviewed——

Mr. OBERSTAR. Presumably they should be following that stuff and staying on top of it, so that you wouldn't have to come back again.

Mr. HAUN. Oh, yes. But, Congressman, it just doesn't happen. You've got people changing constantly. These agencies—one of their greatest problems is instability of personnel in some of these key kinds of positions.

Mr. OBERSTAR. So they in fact aren't keeping track of the progress——

Mr. HAUN. Oh, I think they are from the standpoint of enforcement. But you've got to remember, the permit writer is not the enforcement person. These are different people in these agencies; they don't read the same documents at the same time. They don't have any reason to. And so when the permit application comes in, we get a tickler on it, usually from the agency; we are required to submit the new application—it depends on the State—anywhere from 6 to 18 months in advance of expiration. You've got to provide the same data you would provide if it were a new discharge. And it's got to be published for public comment. There's always a possibility that, in the meantime, somebody downstream or in the neighborhood now objects to this particular discharge, and you go through an adversarial hearing on the renewal as if it were a brand-new permit. It can happen. I've seen it happen. It hasn't happened to us, thank Heaven, and I hope it doesn't, but those are the kinds of things that we think if you just did this on these—give the States the ability to judge the difference. From the very beginning of the permit system, the EPA has identified, what, about 9,000 NPDES permits as major permits; they've talked that way from 1973, and the backlog tends to consist of a lot of these small permits. They never get around to them because they're "not important," and that's what we are really saying. If they're not important, let's extend them so——

Mr. ROE. Will the gentleman yield?

Mr. OBERSTAR. Yes. That's a very important point; I'm very concerned about that kind of attitude.

I yield to the Chair.

Mr. ROE. Well, really, again I think you're striking at a very important sticking point in this whole process of renewing this legislation that I'm sure everybody is aware of. The issue fundamentally is the quality of the water supplies that we're speaking to, No. 1, and what we're really saying—if I may paraphrase what I've observed, and we've known this for a while—there's a terrible breakdown that's taken place, just in "keeping score," so to speak, in the renewal of the permits and so forth. So it seems to me there's another danger that exists here. I know that they're terribly behind in EPA on reissuing those permits. If I'm sitting on a couple of permits that I filed for, and I don't have my hearing or I'm delayed by EPA, whatever the case may be, technically I'm still in violation unless that permit is issued or reissued or some kind of a continuation says, "well, until we get to it, you're OK." That would mean in an adversary position or an adversary hearing that may arise that the company who had done the thing in the right direction could very readily still be subjected to court action at that point. Isn't that a reasonable point?

Mr. HAUN. Mr. Chairman, I think it isn't really fair to say to EPA that there's been a breakdown of the system. What they have been asked to do may well be nearly impossible, given all the circumstances. What we're suggesting is—this is one part of a package; there are some others in our testimony, like the possibility of certain kinds of general permits, or permits by rule. We think that the whole permit program needs to be simplified, focusing on the important problems and to let the administrative agency, whether it's the State or EPA, have more flexibility in how it deals with this.

Mr. Roe. This committee has written into the law the flexibility that EPA should be using. You say that it may not be fair for us to be concerned about EPA, but I assure you that this member is. The flexibility is there; if we had a timely, computerized reissuance of those permits on a timely basis, the issue wouldn't be before us.

Mr. Haun. Some States do.

Mr. Roe. Well, I know, but nevertheless that's the situation.

Mr. Ledbetter.

Mr. Ledbetter. Yes, Mr. Chairman. I would like to come back and focus for a moment on the comments I made earlier where I emphasized 30 of the 50 States are current. We have that process you are talking about; we have the permits computerized. The list is produced by the computer showing that a permit is going to expire at a certain time. We go through the public notice process again with the associated time and related costs. And to respond to Congressman Oberstar's question about what's involved, it's primarily a significant amount of cost to the States and industry in doing all the preparation. We have to pay, of course, for the advertising, the public notice process, and this is all very costly to all of us involved and it doesn't improve water quality; instead, we're diverting significant personnel time to reissuing numerous minor permits. And as I said, really, it's the State, because you've got 38 States writing the permits, not EPA; 38 States now write the permits under EPA's overview, as you've provided.

Now, seven or eight of those States have got some backlog, but many of those are related to mining or certain particular industries. So we think that the flexibility needs to be there for the 10 year permits so that our personnel really focus on reviewing those monitoring reports. In many States, and in my own State, the permit writer reviews the monitoring report and is familiar with the entire process, but still it's very time-consuming in those cases.

Mr. Roe. If the gentleman would yield further, let me point something out. Think of what you said. You said that there are 30 States—if the gentleman will yield further—that don't really have that problem. I served in your position in the State, by the way, the State of New Jersey, so I understand what the details are and I know what it means to sign 50,000 documents a month. What I'm simply trying to say, however, it does keep everybody's feet to the fire. So if we're talking about a time constraint and we're trying to shrink that time to reissue those permits, if 30 States can do it can't the other 20?

Mr. Ledbetter. Well, the reason I recommend we have the 10 year is so that we can focus our personnel on the major permits and do a better job of monitoring and rewriting them. And Mr. Chairman, I would point out that we are—as you well know, from having served in a position similar to mine—increasing our workload as we direct our attention to groundwater, groundwater monitoring, and all the complications of Superfund and RCRA and so forth. We have to address all those with the same personnel. We are trying to address the total environment and some of these personnel need to be freed up——

Mr. Roe. I understand that, but I understand that every time that I went to the legislature—and we never did have enough help to get the job done; we had a battle.

I am just trying to lead to a point, if the gentleman will just yield for just one more second.

The point I am trying to get at, in view of what's unfolding here, which is probably one of the most substantive discussions we've had with representatives such as yourselves and Members, would it be a practical approach in trying to solve this damned problem to get to the point of saying that maybe there ought to be classifications of permits? Would there be some magic if the committee was to consider—which is Mr. Oberstar's approach, I believe—a classification where we would have major permit systems and secondary systems, or something of that nature, where we would put the feet to the fire of EPA and say, "Where there are class A classification permits involved, they get top priority, and that ought to be reviewed." And you made that point eloquently earlier; you said that you're not going to wait 5 years if you've got toxics involved. You've got to do it immediately.

And then, say, the second category ought to have a longer timeframe. Would that help to relieve the situation?

Mr. Ledbetter. I think it could. I think H.R. 8 does that to some degree already, because you set aside certain groups of permits.

Mr. Roe. All right.

The gentleman from Minnesota.

Mr. Oberstar. I thank the Chair for elucidating on that point because I feel that is very, very—Mr. Haun, did you want to respond further? Go ahead.

Mr. Haun. Well, I just think that one technique that would work well is a general permit or "permit by rule" for some of these discharges, in which they could be classified by type, and you could define the types that they applied to and see if that wouldn't make the workload simpler and still accomplish what the objectives are.

Mr. Oberstar. Well, I think that's a valid suggestion, but coming back to the point that you made, Mr. Haun, and Mr. Ledbetter, in fact it's the States that really carry the load on permit writing. And when the Federal Government in its budget-cutting frenzy four years ago chopped hundreds of millions of dollars from EPA, and when EPA under its previous management sacrificed 3,000 jobs, they didn't have the personnel to do this permit—they weren't doing such a hot job at that point, but to take more people out of the fray to review permits and issue permits even dragged the process out further. I think certainly we need more people to review these permits and I think we need to have a streamlined process.

I want to see the Clean Water Program kept on track. I don't want to see any slippage from the progress that has been made. I want to see that all levels of Government are doing their job, doing their share, and it ought to be our responsibility on this committee to provide the means to do so.

And, Mr. Chairman, I realize I've consumed considerably more than my time, and the Chair has been very generous here, but I felt these are extremely important points that we have not even yet begun to resolve, and need to pursue further. Thank you.

Ms. SAVAGE. Mr. Chairman, if I could add to that, Mr. Oberstar and this committee were very concerned about the enforcement dollars for the States. And if you recall last year, in the appropriations we were awarded what the EPA then called an "add-on" for the Water Program that was almost $10 million—$7 million for groundwater and the additional dollars for enforcement in water. Air programs and solid wastes also received funding. EPA then went about diverting that funding. Initially, they wanted to do it for EDB indemnification. They were not successful because of the work of this committee and others. They came back and again took that money away from the States, now for RCRA implementation. So while the Congress keeps addressing the need for more moneys for the States to do enforcement, EPA keeps taking it away.

We appreciate your recognizing that need.

Mr. ROE. Well, I think the gentleman from Minnesota has really helped us extraordinarily here this morning because he is starting to clarify some of the points. If in fact EPA is going to be moved more in the direction of a regulatory agency, with more of the responsibility and the authority being turned over to the States—then there ought to be resources made available to carry out the programming. Otherwise, as Mr. Ledbetter has pointed out, with all of the other programs involved it's just draining more and more resources from the States.

On the other hand, we are beginning to get people to start to think about the idea that when we have groundwater and toxic waste and the Superfund, they're all one and the same; they are methodologies to be able to keep the waters cleared up, as we're talking about. There's a relationship there which we have to put together.

The gentlelady from Connecticut.

Mrs. JOHNSON. Thank you very much, Mr. Chairman. I think this has been one of the most useful hearings that I've had the privilege of being a part of because we have gotten into some of the nitty-gritty nuts and bolts of the mechanisms of enforcement.

I am interested in continuing to pursue, over the course of the months ahead, if there are ways that we can eliminate work that is of less importance and is less productive than other work at the State level because regardless of how well or how poorly we're managing funding or personnel, we're not keeping up with the new workload that we're requiring nor are the States. So I think we have to take seriously those realities and those constraints.

I'd like to turn to raise a little different subject, one brought to our attention by WWEMA. On page 9 of your testimony you talk about the I/A Program and the need for stimulating new approaches and extending incentives to the engineers who will ultimately hold the key to the program's success. Now, you don't go into any detail about how to extend incentives to engineers, although in the preceding two paragraphs above you talk about the fact that anyone who wants to use an innovative or alternate technology is faced with additional paperwork and increased cost. And consequently, engineers will often select a conventional approach in lieu of a new concept.

I'd like you to talk a little bit more about the disincentives for technological alternatives and how we can overcome those disincentives and still protect the public.

Mr. **Spear**. Thank you.

The engineers' fees are very tightly controlled, and it's a very competitive environment as the engineers seek work. The cost of investigating innovative technologies extensively, monitoring them to make sure that their clients receive the best equipment and the processes that will work, is much more expensive than using technology that the consulting engineer is already familiar with, that he has used for years. Perhaps he has designed 5 or 10 plants using similar technology. Consequently, the engineer tends to shy away from using the new technology and uses the conventional technology.

We certainly feel, as we state, that it would be better if there could be some incentives given to the engineer, either through increased fees to cover the cost of this extra work that he must go through, or some other—maybe even a share of the ultimate savings that accrues to the municipality.

Mrs. **Johnson**. Beyond that it seems to me that there's a larger problem. I've had two experiences with this issue of new technology, not in the area of water treatment but in the area of insulation and new road paving materials. One of the problems that you get into is that even if you can demonstrate that over 3, 5, or 8 years the material has demonstrated greater capabilities and is cheaper, you still haven't demonstrated for 30 years or 40 years or 50 years. Now, to what extent is that a problem in your field?

Mr. **Spear**. It's a major problem. The I/A helps that situation in the water pollution area. We do not have a similar program in drinking water treatment, and as a result, we have a great deal of difficulty in getting new technology accepted. I certainly feel that if the I/A Program was eliminated, we would be going back to the same degree of difficulty that we have in the Drinking Water Program. My firm is presently involved in a number of different new processes that have been used throughout the world and in the United States, but it has not been used in the particular State where it is being proposed and, with all due respect to the State agencies, they are very reluctant to approve this technology and the consulting engineer is very reluctant to take the extra time and effort to go to the appropriate agencies and sell the technology. We try to do that, but——

Mrs. **Johnson**. I have seen that specific problem, and I'd like some of the State people to address this, too, that no one person wants to put his name on the bottom line of that decision. I am interested that you can say that no matter how well it has demonstrated its effectiveness in other countries or in another parts of this country, you still have that problem. What can we do about that? Can we provide certain kinds of interim insurance at the Federal level, or guarantees, so that if a new technology has difficulty 10 years down the road there would be some assurance of Federal participation in addressing the problems? What can we do to overcome the very natural anguish and reluctance of individuals within a bureaucracy to take responsibility for the quality of a new development for decades in the future? It's a natural reluctance that they have, but if we don't overcome it I don't see how we're going to get the kind of innovative experimentation or the technological development that both cost and quality really require.

Mr. LEDBETTER. May I respond to that?

First of all, you make a very good point, but we have a conflict. The dichotomy we have here is that the Clean Water Act requires a certification from the local officials who are responsible for assisting in financing, building, and operating this facility, to certify that it will meet the permit. Now, that limits the willingness of those local officials, then, as well as State personnel that are reviewing that project to consider new technology without demonstrated performance. If we are in the posture of having to certify back to the Federal Government that the facility will meet the permit and meet the requirements as a result of them getting the grant, et cetera, then there's not a great deal of incentive there.

I think what has to be done is a special category developed so that, working with the research organizations and with universities and with companies that are willing to put some effort into that, that there is not the same type of accountability there from the standpoint of the certification; but maybe, as you say, some type of insurance program, et cetera. There are no easy answers to it, but we have a dichotomy now because we are saying to those people, "You must certify that this facility will meet the requirements."

Mrs. JOHNSON. One possible model might be, at least at the State level is what we have in Connecticut which is a Board of Materials Review. A board of experts determines whether materials will meet the qualities that our building codes require. And once the Board of Materials Review has certified a product, then building inspectors have no problem allowing the use of that product. Maybe since we're requiring individuals having, in some cases, limited exposure to sign off—maybe in the case of new technology we need some kind of Federal certification or Federal/State/local group that could be assembled for individual instances to certify that this technology would meet the standards of the permit.

Mr. SPEAR. It would be extremely helpful if just one State would be willing to observe and accept work that's been done in another State, and we can cite many instances where certain States will not accept certain processes or equipment, even though it's used in the other 30 States, for example.

Mrs. JOHNSON. Thank you. And if you have suggestions as to language, I would be interested in that.

Mr. HAUN. May I make a comment from the standpoint of a fellow who's been practicing engineering for almost 40 years?

The other day I went out to see—I'm going to retire the 1st of July—I went out to see about buying professional liability insurance. I discovered the rate is now $30,000 per year per million dollars of coverage for the independent engineer involved in design activities. This is the result of the fact that these same public officials who are going to have to certify to the State rely upon the opinion of the engineer; therefore, he's under a great deal of pressure to go back to the old standards of the profession, which is to rely upon good—what we call just plain good standards of engineering. That means that innovation is very difficult, will remain very difficult unless we can find some way to allow engineers the freedom to make a mistake, along with his client. I don't know how you do that, except with a certain amount of trust and confidence that's very hard to develop.

Mr. ROE. The gentleman from Tennessee.

Mr. SUNDQUIST. Thank you, Mr. Chairman.

I am intrigued by your classification questions a few minutes ago. Rather than get into any more details now, I'd like to ask a general question. I compliment the gentleman from Minnesota on his line of questioning; it's an interesting approach.

This is a general question that has two parts, for anybody on the panel. Have we been gaining in the last 15 years in the area of clean water? And having said that, are we better off going through grants or regulations to have further gains, and what will get us there the fastest?

Mr. LEDBETTER. May I respond to that?

First of all, the Association of State and Interstate Water Pollution Control Administrators took an in-depth look at the first part of the question you posed and presented it to the chairman and this committee last year. I'd like to ask Robbi Savage, our executive director, just to summarize that because we did demonstrate, by reviewing all the States, that significant progress has been made under the Clean Water Act.

Ms. SAVAGE. I'll provide that for the record, sir.

[The following was received from ASIWPCA:]

AMERICA'S
CLEAN WATER

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Prepared by The Association of State and Interstate Water Pollution Control Administrators in cooperation with The U.S. Environmental Protection Agency. February, 1984

TO THE READER

During the past several decades, the people of the United States have devoted substantial resources to restoring and maintaining water quality. Local, State, and Federal governments have undertaken a variety of programs towards this goal. Yet until now, no system had been developed to produce a brief, comprehensive report to the American public on the progress being made toward achieving cleaner water.

In 1982, the Association of State and Interstate Water Pollution Control Administrators and the U.S. Environmental Protection Agency joined together to produce such a status report. Through an 18 month effort, State and Federal environmental managers worked cooperatively, first to design a system for reporting on surface water conditions and then to produce this report.

AMERICA'S CLEAN WATER reflects data from 56 reports provided voluntarily by State, Interstate and Territorial water pollution control agencies; it portrays the State perspective on the accomplishments of the Clean Water Program and the value derived from the tax dollars and private investments made by the American people to restore and enhance the quality of our Nation's waters.

Reginald A. LaRosa
President, ASIWPCA

When we began this project, our intention was to reduce the States' reporting burden and enable a consistent assessment of surface water quality across the nation. I am pleased to see that this effort has achieved the original objectives and also resulted in a broader accomplishment.

This report represents the first time that EPA and the States have agreed on a set of measures to describe progress in carrying out the mandates of the Clean Water Act. Such information is the core of an effective State-EPA relationship where States operate the programs and EPA provides support and ensures national consistency. With this as a base, we can now move forward to develop additional measures needed to cover such areas as groundwater, estuaries, toxics, and nonpoint pollution. We are also in a position to integrate these measures into other existing and future reporting mechanisms.

AMERICA'S CLEAN WATER represents a significant accomplishment. We have documented the steady progress in water quality and provided a solid base of information which will enable us to work together to address future and emerging problem areas. I am pleased that we have established such a successful collaboration with our State partners and I look forward to a continuing productive relationship with the States and with ASIWPCA.

William D. Ruckelshaus
Administrator, U.S. EPA

WHAT A DECADE CAN DO

The news is good. The water is cleaner.

Ten years ago, reports were all too frequent of fish disappearing from rivers and streams, lakes choked with algae, and beaches posted against swimming or shellfishing.

Recognizing that there was no standardized approach to cleaning up surface waters, Congress set America on a course "to restore and maintain the chemical, physical and biological integrity of the Nation's waters" through the Clean Water Act of 1972.

The States, who have "the primary responsibility and rights" to prevent, reduce, and eliminate pollution under the Act, are now reporting back to the Congress, to State leaders, and to the public the results of their efforts from 1972 to 1982.

In a decade when the nation's population grew by 11% accompanied by a sizeable increase in the use of surface waters for industry and recreation:

- 47,000 stream miles have improved in quality;
- 390,000 acres of lakes show improved water quality;
- 142 million people are receiving secondary or more advanced levels of sewage treatment, up from 85 million in 1972; and
- cities and industries have substantially increased compliance with their limits on waste discharges.

This comprehensive report about the Nation's surface waters shows that the tremendous investment of resources by State, Local and Federal water pollution control agencies and the expenditures by wastewater dischargers are paying off. Even with substantial increases in the number of waste sources, pollution of the country's streams and lakes is being reduced. Most of our water has maintained its quality despite the pressures of wastes from more people and more industry. Other waters have shown dramatic improvement, while some have been degraded.

The report also emphasizes that even as old problems continue to demand careful attention, new problems—such as toxic pollutants and groundwater contamination—are appearing on the horizon.

The findings in **AMERICA'S CLEAN WATER** about the status of water quality are drawn from 56 reports prepared between June and October 1983 by States, Territories and Interstate Agencies. The complete reports can be found in the Appendix, available from ASIWPCA.

The methods used to reach the conclusions that follow and the number of reports reflected in each calculation can be found in a "Statistical Summary" also available from ASIWPCA.

Of the nation's 1.8 million miles of stream, 58% are generally free from known water quality pollution problems. The remaining 42% (758,000 miles) discussed in this report, represents the geographic locations supporting America's population and/or industrial activity.

WHAT THE STATES REPORT

America is rich in water resources. States report a total of 1.8 million miles of streams and 33.4 million acres of lakes and reservoirs.

Findings in this report reflect the States' evaluation of 42% of the Nation's streams—758,000 stream miles. Of these, roughly 169,000 miles of streams were monitored in 1982 for long-term trends in water quality.

The States also evaluated nearly half (16,320,000 acres) of the nation's 33,450,000 acres of publicly owned lakes and reservoirs. The quality of 9.7 million of these acres was monitored for trends in 1982.

Some States evaluated up to 100% of their surface waters, others assessed a limited part. The proportion varied from State to State, depending on the amount of waters, the distribution and severity of pollution sources, and the availability of funds for monitoring.

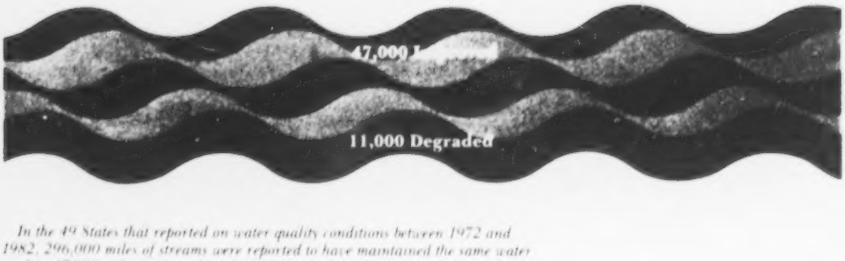
Resources have generally been concentrated on analyzing those waters directly affected by human activities or likely to be used by the public. In some States, this may constitute only 3 or 4% of the total mileage. However, for the most part, the quality of the waters *not* evaluated is believed to be *equal to or better than* that which was assessed.

States reached their conclusions about water quality using a combination of:

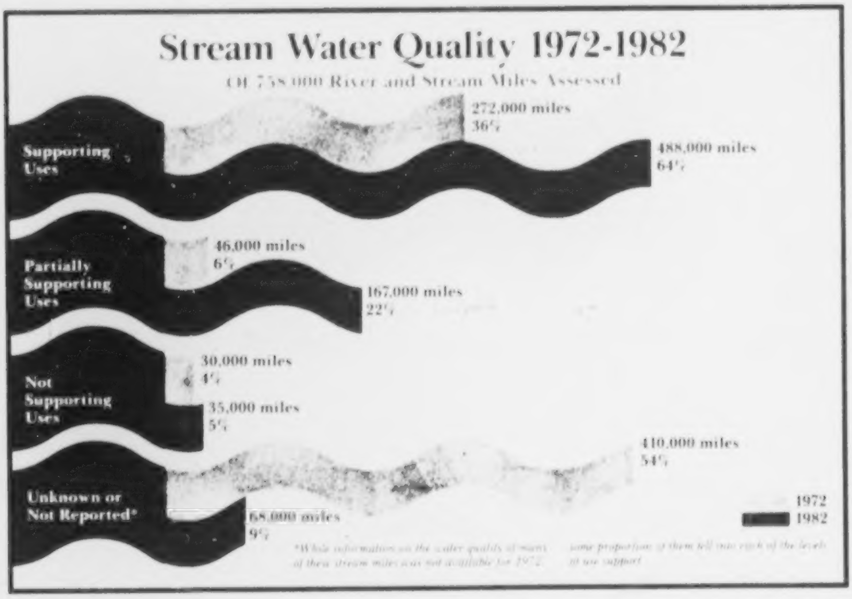
- long-term trend monitoring records;
- short-term intensive surveys; and
- professional judgments and direct observations by staffs of pollution control, fish and wildlife, and other natural resource agencies.

Water Quality 1972-1982

Numbers Reflect Stream Miles



In the 49 States that reported on water quality conditions between 1972 and 1982, 296,000 miles of streams were reported to have maintained the same water quality, 47,000 miles improved, and 11,000 miles have been degraded.



Stream Water Quality 1972-1982

Of 758,000 River and Stream Miles Assessed

*While information on the water quality of many of these stream miles was not available for 1972, some proportion of them fell into each of the levels of use support.

WATER QUALITY

STREAMS AND RIVERS

Achieving "Fishable Swimmable" Waters

The Clean Water Act establishes as a goal Fishable Swimmable water quality "providing for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water" "wherever attainable." Most of the Nation's surface waters have these uses designated as their ultimate quality targets.

Over 120,000 stream miles are designated for uses more stringent than Fishable Swimmable, such as drinking or food processing. Only 32,000 miles have stream standards set for less stringent uses.

Evaluating Water Quality

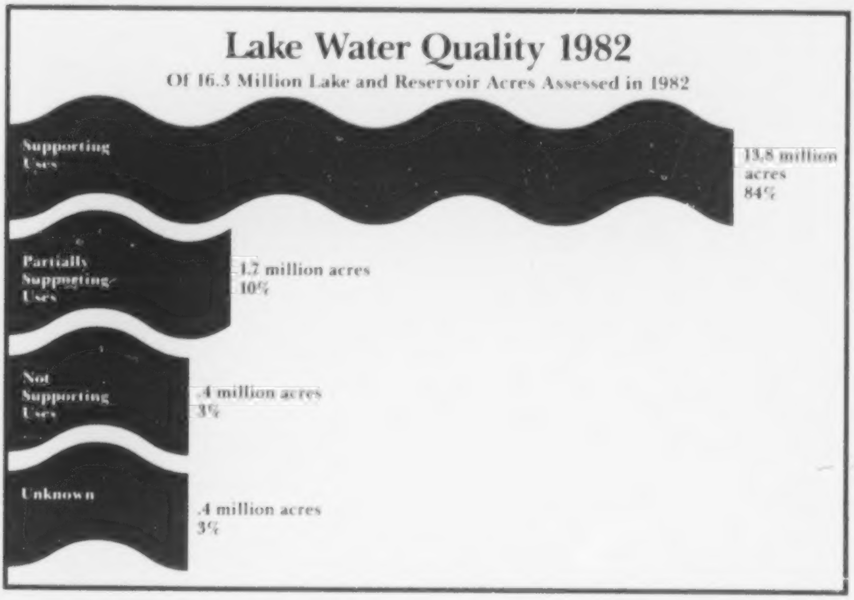
States evaluate the quality of their waters by the extent to which these waters support the uses for which they have been **designated**. [Terms shown in **bold** are defined in the Glossary, page 14.]

These uses, which can include fishing, public water supply or agriculture, and the levels of quality necessary for their maintenance, are the components of **water quality standards**. Standards are established by each State in accordance with requirements of the Clean Water Act and State law. The U.S. Environmental Protection Agency (U.S. EPA) is responsible for overseeing compliance with the Federal law.

States made significant accomplishments in water quality between 1972 and 1982. In the States that reported on water quality changes over this decade:

- 296,000 miles of streams maintained the same quality;
- 47,000 miles improved; and
- 11,000 miles were degraded.
  Changes for another 90,000 miles were reported to be unknown.

The *maintenance of water quality during the past decade represents a major accomplishment* in itself. The nation's population has grown 11%, and in many areas, surface water use for industry, resource development and recreation has increased dramatically. Growing populations and



Lake Water Quality 1982

Of 16.3 Million Lake and Reservoir Acres Assessed in 1982

development pressures often result in increased generation of domestic wastewaters and industrial wastes that must be managed. Sizeable investments in better waste treatment processes have been made by dischargers, and government agencies have devoted substantial time, effort and resources to assure that the monies spent contributed to achieving the goals of the Clean Water Act.

While the past decade's changes reflect significant accomplishments, many streams have yet to achieve the level of water quality needed to support their designated uses fully. 64% of stream miles fully supported their uses in 1982. 22% provided partial support, and 5% did not support their designated uses. Simply stated, many streams assessed in 1982 still have water quality problems which prevent full use support.

LAKES AND RESERVOIRS

During the past decade, many pollution control agencies increased their emphasis on evaluating and resolving lake water quality problems. Based on their findings about trends during this period, program managers recognize that further attention to these problems will be necessary in the years ahead.

Between 1972 and 1982, States found that:

- 10,130,000 lake acres maintained the same quality;
- 390,000 acres improved in quality;
- 1,650,000 acres were degraded; and
- 4,150,000 acres were unknown or not reported.

ESTUARIES

Seventeen States reported on changes in the water quality of their 17,330 square miles of **estuaries.** In the decade between 1972 and 1982:

- 12,800 square miles (74%) maintained their quality;
- 3,800 square miles (22%) showed improvements;
- 560 square miles (3%) were degraded; and
- 170 square miles (1%) were unknown.

WHAT HAS ALREADY BEEN DONE?

Water quality gains throughout the country have been achieved by a combination of State, Federal, and Local programs.

TREATING MUNICIPAL WASTEWATER

The provision of adequate municipal wastewater treatment to a growing population has been one major accomplishment of the past decade. In addition, the level of sewage treatment provided to the American public rose enormously.

With only a modest $260 per capita expenditure for municipal sewage system capital costs, noticeable improvement in water quality can be demonstrated nationwide between 1972 and 1982.

Of the approximately 224 million people in the United States in 1982:

- *142 million* were served by the generally required **secondary treatment** or by more advanced levels; this reflects an increase of 57 million people since 1972.
- Approximately *23 million* people were served by treatment facilities which provide less than secondary treatment.
- The population served by sewer lines carrying raw wastewater to streams dropped from 5 million in 1972 to *1 million*.
- The number of people requiring but not receiving public sewage collection and treatment dropped from 21 million to *14 million*.
- *44 million* people did not need municipal sewage systems because they were adequately served by on-site disposal systems.

Reducing Municipal Pollutants.

Upgrading the level of sewage treatment produces direct benefits by reducing pollutant discharges to waterways. The most widely used measure of municipal pollution is the extent to which the treated waste's organic content depletes the receiving water's oxygen, reducing the amount available to fish and other aquatic life. This municipal organic pollution decreased dramatically during the past decade. Treatment capabilities increased at a higher rate than the nation's population grew.

What Does it Cost?:

While substantial investments have already been made in controlling municipal wastewaters, the States and U.S. EPA have determined in the 1982 "Needs Survey" that $118 billion are still required to meet public wastewater system needs.

TREATING INDUSTRIAL WASTEWATER

Industry has responded positively to the mandates of the Clean Water Act. During the past decade, industrial dischargers have invested heavily to reduce their water pollution. While total expenditures were not available in each State, there are numerous reports of improved water quality resulting from reduced discharges.

Under the Act, industries must meet discharge limits based on the "best practicable" and "best available" treatment technologies as defined by U.S. EPA. One key measure of industries' cleanup effort and progress is the greatly increased level of their compliance with State or Federally established discharge limitations, especially for plants with the largest wastewater flows.

CONTROLLING NONPOINT SOURCE POLLUTION

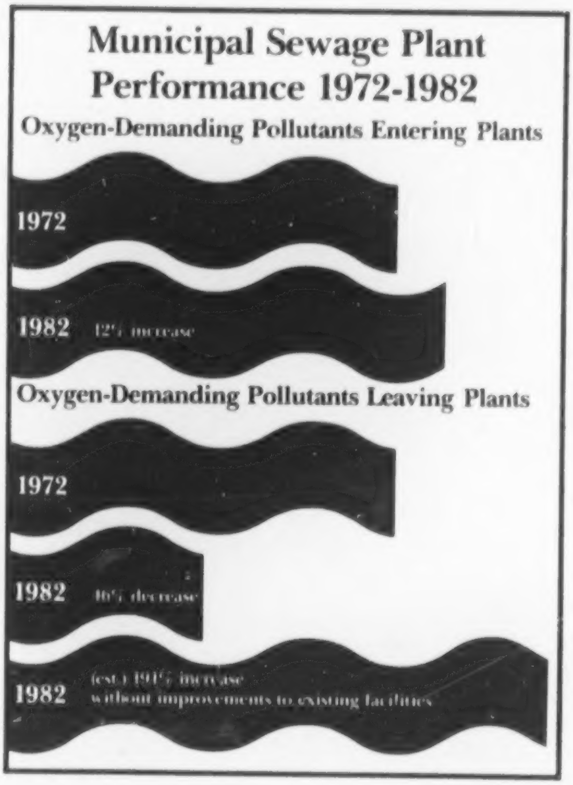
States have given increasing attention during the past ten years to ***nonpoint source pollution***—diffuse runoff of pollutants from various sites, such as mines, city streets and agricultural lands. State and Local governments have conducted studies to evaluate the extent of these problems and then have emphasized citizen education and demonstration projects to promote use of the best management practices available to reduce or prevent runoff.

Since the nature of the problem varies markedly from site to site and over time, State control programs are also highly variable.

Agricultural nonpoint pollution is generally being addressed through voluntary programs. Cost-sharing is used in critical areas of several States to promote installation of suitable controls. Cooperative programs that coordinate the water pollution control agency and the U.S. Soil Conservation Service or local Conservation Districts are being used to advantage in many areas.

Control of urban runoff is also generally instituted voluntarily. In a few instances, States have adopted legislation enabling or requiring localities to manage their stormwater with the State agency providing technical assistance.

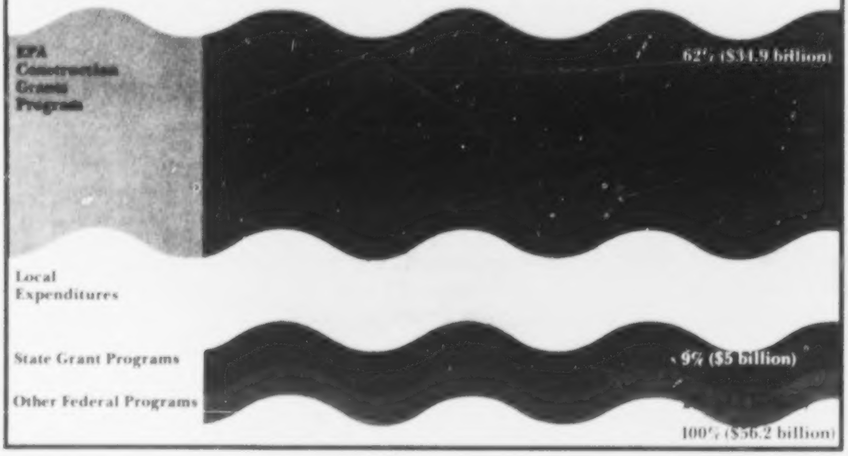
Nonpoint pollution from mining and construction activities are the only categories that are commonly subject to State regulation. In the case of mining, both active and abandoned sites must be addressed. In some instances, Federal mine land reclamation programs are being used to deal with drainage from abandoned mines. Over a dozen States report they use some type of erosion and sediment control legislation to mandate reduction of construction site runoff.



Between 1972 and 1982, the amount of oxygen demanding pollutants entering the nation's sewage plants grew by 12%. During that same span, the amount released into waterways dropped by 46%. Had treatment capabilities not improved at a faster rate than the nation's population was growing, States collectively estimate that 1982 discharges would have been greater than 191% the levels actually discharged.

National Costs for Sewage Treatment 1972-1982

Capital Costs for Publicly Owned Wastewater Facilities



Of the over $56 Billion in public funds invested $34.9 Billion comes from the U.S. EPA construction grant program; $14.8 Billion are local expenditures to match federal funds or independently construct facilities; $5 Billion States provided in the form of grants or loans; and $1.5 Billion was under other Federal programs (e.g. Department of Housing and Urban Development (HUD), Farmers' Home Administration, and the Economic Development Administration).

STATE PROGRAMS

CHANGES THROUGH THE DECADE

State water quality programs have undergone a marked change in emphasis in recent years. In the period just after 1972, administrators concentrated on establishing or improving regulatory permit programs to limit municipal and industrial discharges to streams and rivers. Attention during those years focused on pollutants that had been known for some time to harm water quality or public health.

Later in the decade and into the 1980's, the focus has been broadened to identify and control nonpoint source pollution, to measure and reduce **toxic pollutants** from point and nonpoint sources, and to protect groundwater resources. During recent years, attention in many States has also expanded from streams and rivers to increase emphasis on lake quality.

REGULATING DISCHARGERS

The regulation of municipal and industrial point source dischargers has been a continuing focus of State pollution control programs. While a number of States had regulatory systems prior to the 1970's, the 1972

Clean Water Act required virtually every point source to obtain either a federal or State permit specifying its allowable discharge limits. Thirty-six States now administer pollution control permit programs. In the remaining States, dischargers obtain permits from the U.S. EPA.

Significant Wastewater Dischargers. In 1982, more than 22,000 permits to municipalities were in effect nationwide. 16% of these, or 3,600, were to **Significant Facilities.**

There were 4,500 Significant Industrial Facilities. These constituted 11% of the 41,000 industrial facilities holding State or Federal permits in 1982.

In managing regulatory enforcement programs, States concentrate their attention on facilities in **Significant Non-Compliance.** For the purposes of this report, facilities that were not in significant non-compliance were deemed to be in compliance.

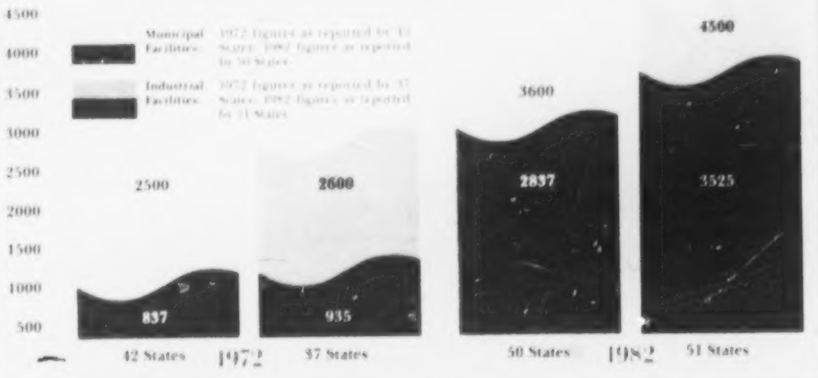
The proportion of significant industrial and municipal dischargers in compliance with the treatment levels required of them in 1982 increased substantially during the past decade. This finding parallels trends recorded by U.S. EPA.

STATE COMPLIANCE AND ENFORCEMENT PRACTICES

Virtually all States use a tiered approach to enforce pollution control requirements. In such systems, the

Compliance by Municipal and Industrial Facilities

Significant Municipal and Industrial Facilities Not in Significant Non-Compliance with 1982 Requirements*



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*Facilities in Compliance are defined as those not in Significant Non-Compliance. U.S. EPA's definitions of major dischargers and means of measuring compliance differ slightly from those included in this report.

primary emphasis is on achieving compliance by cooperation. The first step of enforcement for infrequent or minor violations of allowable discharges is usually a type of pre-administrative action that includes notification of the violation often accompanied by technical assistance.

When compliance is not achieved by these means, or for more serious violations of discharge limits or schedules for installing facilities, administrative actions may be necessary; these can include the assessment of civil penalties through consent or administrative orders, permit denials, or the imposition of sewer connection bans. Judicial action is generally used as a last resort for extended or severe violations.

Among 1,223 significant facilities reported to be in significant noncompliance with their permits in 1982, 61% were subject to pre-administrative action; 23% to administrative action; and 11% to judicial action during the course of the year.

These figures do not include enforcement actions taken by U.S. EPA. It should also be noted that in some instances—depending on the violator's responses—subsequent action may have been taken by the State during 1983.

CURRENT POLLUTION PROBLEMS

As noted above, despite the advances made in reducing pollution discharges over the past decade, 27% of the stream miles evaluated in 1982 did not fully support their designated uses. States have estimated the principal pollution sources for those waters by ranking them in terms of the relative percent of stream miles affected. Reduced quality was attributed to nonpoint sources, municipal wastewater facilities, industrial dischargers, or other sources such as **naturally** occurring substances.

While these various pollution sources may cause less than full support of designated uses, they do not necessarily preclude uses.

Municipal sources—generally sewage treatment systems—were ranked first by 19 States, while 20 others considered them the second major cause limiting full support of uses. Industrial point sources were ranked first by only 3 States and 24 reports gave these sources the third highest ranking. Nonpoint sources were ranked first by 26 States and second by another 13. The results for lakes and reservoirs showed essentially the same pattern.

Point Source Pollution

The primary pollutants discharged by municipal and industrial sources differ. Ensuring control of these discharges has been and remains a major focus of State program managers' attention.

For municipal wastewater treatment facilities, the components of major concern have been those that reduce the oxygen levels of the waters to which they are discharged, disease-related bacteria, and nutrients that stimulate undesirable growth of algae.

Pollutants that reduce oxygen levels are also among the most significant industry-related water quality problems according to many reports. But toxic pollutants are judged the key industrial pollutant concern by an even greater number of States.

Nonpoint Source Pollution

In contrast to the discharges from point sources, particularly of municipal wastewaters, that occur 24 hours a day, 365 days per year, nonpoint source discharges are intermittent. The resulting pollutant loadings to streams may have less potential for affecting designated uses.

States evaluated the severity and geographic extent of nonpoint source pollution from various sources. In judging '**severity**' States considered the degree to which each source impaired designated uses; the proportion of waters affected by a particular source was evaluated as '**geographic extent**.'

The nonpoint source pollutants most seriously affecting water quality in most States are suspended particles of solid materials, chemical nutrients (nitrogen and phosphorus) that promote undesirable growth of algae, waste-related bacteria, and pesticides and heavy metals, often considered toxic pollutants.

Because of its diffuse nature, nonpoint source pollution has been difficult to define and measure. It occurs intermittently, often in association with heavy rainfall, and many sources can contribute to any one problem. The complexity of demonstrating the effectiveness of particular control practices has also made it difficult for Federal, State and Local governments to prevent and control such pollution.

Toxic Pollutants

Fourteen thousand stream miles in 39 States have been affected by toxic materials from point and nonpoint sources as well as naturally occurring chemicals such as mercury, arsenic, or lead.

Sixteen States report that toxic pollutants have had adverse water quality impacts on 638,000 acres of their lakes.

Approximately 920 square miles of estuaries in 8 States were considered to be adversely affected by toxic pollutants.

These numbers may understate the full extent of toxic pollution, because the States' assessments were focused on known acute situations or identified "hot spots."

Knowledge of the extent and effects of toxic pollutants has increased fairly recently, so State programs for monitoring, establishing control strategies for toxicity elimination and regulating discharges of these materials are still maturing.

Nonpoint Source Pollution

The results from the 45 States reporting on Severity and Geographic Extent were:

	SEVERITY			GEOGRAPHIC EXTENT	
	Severe	Moderate	Minor	Widespread	Localized
[illegible]	16*	20	8	29	12
[illegible]	11	20	12	8	35
[illegible]	15	10	13	2	36
[illegible]	12	11	17	5	35
[illegible]	6	23	14	7	34
[illegible]	7	18	14	5	33
[illegible]	4	7	21	6	27
[illegible]	2	9	10	1	21

ISSUES AND CHALLENGES

While much has been accomplished through water pollution control programs, several significant problems still require attention and resolution.

Municipal Wastewaters

Various aspects of the comprehensive municipal water pollution control program were reported as special concerns by 29 States during the past decade. 47 reports cited components of this program among their major problems in the future. Meeting the challenges will require:

- Obtaining *adequate funds* to build needed municipal sewage facilities, emphasizing innovative methods to finance facility construction, expansion, and replacement;
- Assuring proper *operation and maintenance of facilities* by trained and qualified personnel;
- Developing regulatory programs to assure *pretreatment of industrial wastes* discharged into municipal sewage facilities;
- Controlling stormwater that runs into *combined sanitary and storm sewers*, occasionally overloading treatment plant capacity; and
- Establishing regulatory programs for managing *sludge* produced during wastewater treatment.

Nonpoint Source Pollution

In looking toward the future, 40 reports noted the necessity of controlling nonpoint sources if water quality is to continue to improve as point sources are better regulated.

Water quality degradation from abandoned industrial operations—particularly mining facilities—was highlighted as one of the problems that will be especially costly to resolve. Other types of nonpoint source pollution, notably runoff of soil, nutrients, and pesticides from agricultural lands and urban runoff, were frequently cited as major water quality problems that will need additional attention.

Groundwater:

47 States regard assurance of adequate groundwater quantity and quality as a primary focus in coming years, up from 27 States that specifically highlighted this issue as a special problem over the past decade.

Groundwater protection cannot be isolated from State attention to toxic pollutants, many of which contaminate groundwater as they percolate into the ground from hazardous waste and former industrial disposal sites. Other frequent causes of groundwater contamination include faulty septic systems, leaking industrial and petroleum storage tanks, and spills.

Toxic Pollutants:

41 States report that identification and control of toxic pollutants is one of the major problems they expect to be confronting in the years ahead. States and the U.S. EPA are developing new approaches to move beyond the Clean Water Act's regulations that mandate use of the best available technology to eliminate toxicity.

ASIWPCA has endorsed incorporating a Toxicity Elimination And Management Strategy (TEAMS) into the national Clean Water Program. Under TEAMS, control programs are to be directed at eliminating toxic effects; the results of biological monitoring are the key determinants in judging such effects.

U.S. EPA has developed an integrated regulatory strategy through which they and the States will use both biological and chemical methods to address toxic pollutants from industrial and municipal sources.

Other Problems:

Many other water quality problems that have warranted special State attention during the past decade are also seen as demanding continuing attention in the years ahead:

- Improvement or maintenance of surface water quality and assurance of adequate quantities;
- development pressures, notably in relation to energy resource development;
- the need to assure adequate protection for specific types of waters, such as high-quality recreation waters, wetlands and coastal zones;
- regional water management to address problems that cross State or national boundaries;
- salinity of surface and groundwaters; and
- acid precipitation.

LOOKING AHEAD

Great progress has been made in national water cleanup during the past decade.

It has been a combined effort. State, Federal and Local Agencies have together carried out the mandates set by Congress in 1972. The public has been supportive and industries have contributed and complied. As a result, America has moved into the 1980's with:

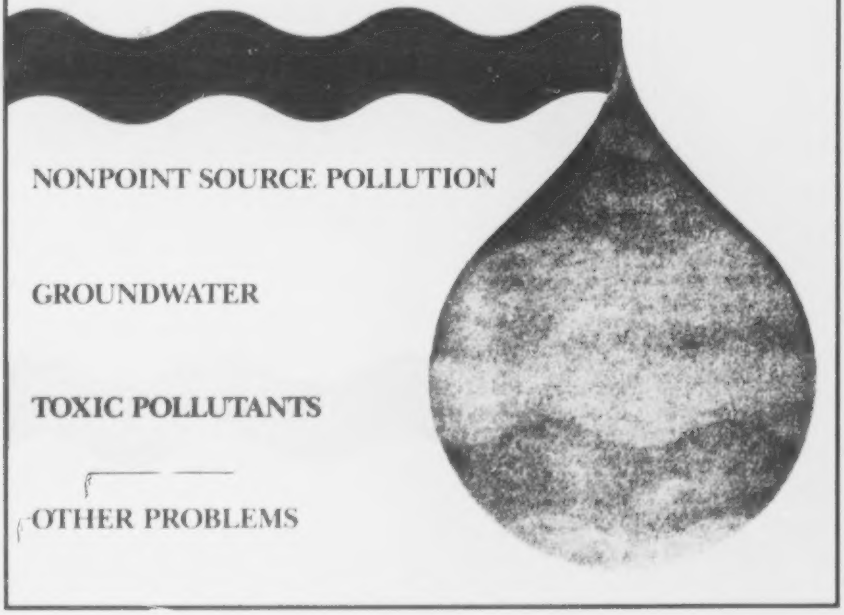
- better water quality in many streams and lakes;
- more waters supporting designated uses;
- more people served by adequate sewage treatment;
- more dischargers complying with their treatment requirements; and
- greater public awareness of water quality and interest in sustaining past gains.

Clearly, however, much remains to be done. There are communities that still need adequate sewage treatment facilities. Ways must be found to ensure the proper operation and maintenance of facilities already built and in use. The effects of toxic pollutants must be better understood and their release into the Nation's waters controlled. Nonpoint source pollution must be reduced, and the protection of groundwater must be expanded. A number of water program managers recognize the possibility that further progress in water quality improvement may be both more difficult and more costly to achieve than our accomplishments to date.

Future gains must be achieved while the Nation's population continues to grow. But the past decade has laid a solid foundation. For the most part, we have maintained our water quality and we have begun to improve it. The majority of States have also improved their systems for evaluating and reporting on water quality.

The progress made toward cleaner water will serve us well as we build on past accomplishments in the years ahead.

Challenges for the Future



GLOSSARY

Designated Uses	Those water uses identified in State water quality standards which must be achieved and maintained as required under the Clean Water Act. Uses can include cold water fisheries, public water supply, agriculture, etc. For purposes of this report: Uses are **Fully Supported** if monitoring indicates no chemical pollution exists, biological communities are fully supported, and/or the most sensitive designated use is observed to be supported. Uses are **Partially Supported** if there is minor chemical pollution, the presence of balanced biological communities is uncertain, or the most sensitive use is not supported at a maximum level. Uses are **Not Supported** if there is major chemical pollution, aquatic communities are stressed or absent, or the most sensitive designated use is severely impaired or impossible.
[illegible]	Regions of interaction between rivers and near-shore ocean waters, where tidal action and river flow create a mixing of fresh and salt water.
Nonpoint Sources	Pollution sources that are diffuse, from which pollutants run off the land. The commonly used categories for such sources are: agriculture, forestry, urban, mining, construction, dams and channels, land disposal and saltwater intrusion. For purposes of this report, a source was judged **Severe** if it impaired designated uses; **Moderate** if it interfered with, but did not preclude, uses; **Minor** if it had minimal effects on designated uses; **Not Applicable** if it did not occur or did not affect designated uses. **Widespread** if it affected 50% or more of the State's waters; **Localized** if it affected less than 50% of waters.
Point Sources	Discharges into waterways through discrete conveyances, generally pipes and channels. Municipal and industrial wastewater treatment facilities are the most common point sources; these also include overflows of combined storm and sanitary sewers.

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Secondary Treatment	Biological processing of wastewater that removes soluble oxygen-demanding materials and suspended solids. The minimum level of municipal treatment generally required under the Clean Water Act.
Significant Industrial Facilities*	Industrial dischargers which have been calculated by States to cumulatively release 95% or more of the total flow from all industrial plants in the State. Except where otherwise noted, these sources are the ones referred to in this report as "Industrial Facilities."
Significant Municipal Facilities	Those publicly owned sewage treatment plants that discharge 1 million gallons per day or more and are therefore considered by States to have the potential for substantial effect on receiving water quality. Except where otherwise noted, these sources are the ones referred to in this report as "Municipal Facilities."
Significant Non-Compliance*	Violations by point source dischargers of sufficient magnitude and/or duration to be considered a regulatory priority. Categories are: violations of requirements resulting from previous enforcement action; violations of permit compliance schedules; and violations of permit effluent limits which have the potential to cause or have caused adverse environmental effects or pose a human health hazard.
[illegible]	Materials that cause death, disease, or birth defects in organisms that ingest or absorb them. The quantities and length of exposure necessary to cause these effects can vary widely. Organic and inorganic chemicals, including heavy metals, are the most common pollutants of concern, but ammonia and chlorine can also cause toxicity problems.
Water Quality Standards	Requirements authorized by State law which consist of designated uses for all waters and minimum acceptable levels of water quality that will permit achievement of these uses. The criteria can be numerical or narrative. Standards are developed in a public decision-making process and reviewed and approved by U.S. EPA.

**Does not reflect the definition used by the U.S. EPA.*

THE STEP PROJECT

This report is the product of the Association of State and Interstate Water Pollution Control Administrators, (ASIWPCA) in cooperation with the U.S. Environmental Protection Agency (U.S. EPA).

ASIWPCA, the national professional organization of State directors who implement the nation's Clean Water Program, has for many years focused attention on the need to improve water quality reporting to more accurately reflect progress toward achieving the goals and requirements of the Clean Water Act.

ASIWPCA's proposal to design a system for streamlined reporting and to develop common definitions for water quality evaluation resulted late in 1982 in the initiation of a project labeled STEP—the States' Evaluation of Progress in the Clean Water Program.

All States, Territories and Interstate Agencies were asked to complete reports using the STEP system. Because data and records needed to answer many of the questions were limited or unavailable—especially for 1972—the responding States were encouraged to supplement monitoring results with their professional judgment and direct observations. In some cases, data were extrapolated back to 1972 from records gathered later in the 1970's.

The respondents used standardized instructions and formats to derive and display their findings. The national results contained in this report are based on those State responses completed in accordance with the instructions.

The Project's activities were guided by a policy-making Steering Committee and implemented by a Task Force of State and U.S. EPA representatives. Members of these groups merit recognition and appreciation for their contributions toward making the project successful.

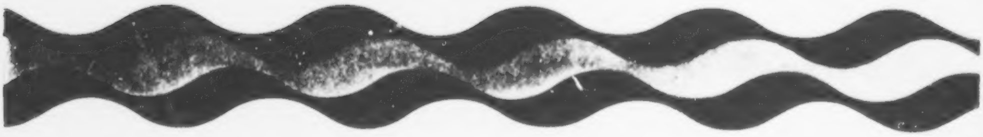
THE STEERING COMMITTEE

The Steering Committee was co-chaired by J. Leonard Ledbetter of Georgia, and Roberta (Robbi) Savage, ASIWPCA's Executive Director. State members included: Reginald (Tex) LaRosa (VT), Daniel Barolo (NY), Robert Touhey (DE), Roger Kanerva (IL), Emory Long (TX), Gyula Kovach (KS), Calvin Sudweeks (UT), Ronald Miller (AZ), Harold Sawyer (OR), J. Edward Brown (IA), and George Britton (NGA Subcommittee on Water Management). U.S. EPA was represented by: the Assistant Administrator for Water: Eric Eidsness (October 1982-May 1983) and Jack Ravan; Joseph Cannon (October 1982-July 1983), Associate Administrator for Policy & Resource Management; Lewis Crampton, Director, Office of Management Systems and Evaluation; Lester Sutton (October 1982-March 1983), Region I Administrator; Thomas Eichler, Region III Administrator; Charles Jeter, Region IV Administrator; and Dick Whittington, Region VI Administrator.

THE TASK FORCE

The Task Force, chaired by Carol Jolly, the STEP Project Manager for ASIWPCA, included as its State members: David Clough (VT); Paul Sausville (NY); Robert MacPherson (DE); Jack Dozier (GA); Robert Clarke (IL); Clyde Bohmfalk (TX); Karl Mueldener (KS); Jay Pitkin (UT); Bill Shafer (AZ); and Mary Halliburton (OR). It also included as U.S. EPA representatives: Frederick Leutner (Office of Water); John Wilson (Office of Policy, Planning and Evaluation); Chuck Rossoll (Region I); Billy Adams (Region IV); and Ken Kirkpatrick (Region VI).

Christine Parent served as the STEP Project Assistant. Members of ASIWPCA's staff are: Linda Eichmiller, Deputy Director, and Carol Greenwood, Administrative Assistant.



For further information about ASIWPCA or this report, contact Robbi J. Savage, Executive Director, at (202) 624-7782.

The collection of information during the course of this project was approved by the Office of Management and Budget under ICR Number 2040-0036.

The reporting system used to prepare this document was funded in part by the United States Environmental Protection Agency under Assistance Agreement CX-810589 to the Association of State and Interstate Water Pollution Control Administrators.

This document has been reviewed and approved for publication by the Office of Water and the Office of Policy, Planning and Evaluation of the U.S. Environmental Protection Agency (U.S. EPA). While U.S. EPA believes that the data used form a valid base for a national report, approval does not signify that the contents reflect the views and policies of the Agency.

Designed by Levine & Rudd, Inc.
Printed by Colortone, Inc.

Ms. **Savage**. What our association did was look at a 10-year period between 1972 and 1982 to see the significance of the changes in the clean water program. What we have outlined are the changes in the percentage of meeting the requirements of the Clean Water Act, and 64 percent of the waters in the United States currently meet the requirements of the act. We also looked at how much money has been invested in the program by State and local governments, by the Federal Government, and by EPA and other Federal agencies. We looked at compliance, BOD levels, and we made some predictions about how the waters of the United States would have been affected had we not had the Construction Grants Program. And I would be pleased to provide the committee with that information.

Mr. **Ledbetter**. If I might add, this was during a period when this Nation experienced an 11-percent increase in population, so we made significant progress in cleaning up our streams while we were growing.

In order to address the second part of your question, we consider it very important to continue the Federal financial involvement over a period of time. Our association, along with many other organizations including the National Governors Association—support a transition over a 5 to 10 year period from grants to loans. We are saying to continue the Construction Grants Program that is so important to our local governments in being able to meet the needs that they have.

Mr. **Sundquist**. Mr. Perry.

Mr. **Perry**. Mr. Sundquist, the Water Pollution Control Federation, just over a year ago, produced a piece called "The Decade of Progress" and this is not nearly as technical as what Mr. Ledbetter has discussed, that the States did. But this is written for the lay public, and it is to point out the progress that has been made in the 10-year period from 1972 to 1982, and we would be glad to see that you get copies of that.

[The following was received from Mr. Perry:]

A DECADE OF PROGRESS

AMERICA'S QUEST FOR CLEAN WATER

Message from the WPCF President

Near my home in Atlanta, Georgia, there is a small, fast flowing steam called Sope Creek, named after an Indian Chief of the Cherokee tribe.

Sope Creek is a beautiful stream that runs through a scenic, deep gorge on its way to the famous Chattahoochee River that flows through metropolitan Atlanta. The area is famous for its lush vegetation and unusual rock formations.

But in the early 1970s Sope Creek was also famous for another reason: more than a third of its flow was composed of raw wastewater.

Ten years later, after construction of a deep tunnel to carry wastewater past the gorge, Sope Creek has been restored. Swimmers and picnickers have returned to its waters, and the Chattahoochee—indeed all Atlanta—has been the beneficiary.

The story of Sope Creek is but one of hundreds of successes in water pollution control in the past decade. Many of them have been made possible by grants made since the landmark legislation of 1972, the Clean Water Act.

This publication is part of a larger effort by the 30,000 members of the Water Pollution Control Federation to communicate the achievements of the past decade. But more than that, the *Decade of Progress* is also a hope for the years ahead.

Charles H. Jones
President
Water Pollution Control Federation
May 1983

1972: Beginning the Quest

We cannot postpone action on our environmental crisis. The pollution that is fast destroying our waters will not go away of itself, nor can it be eliminated by halfway, bargain basement measures.

With those words Congressman Robert E. Jones of Alabama, Chairman of the House Public Works Committee, urged his fellow congressmen to override President Richard Nixon's veto and approve the Federal Water Pollution Control Act Amendments of 1972 on October 18, 1972.

Congress overwhelmingly endorsed the legislation that day, voting 247 to 23 to override the veto, joining the U.S. Senate, which had acted similarly the day before.

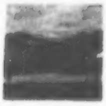
And the nation embarked on an enormous effort to "eliminate the discharge of pollutants by 1985" to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

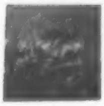
The effort that produced the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) was one of the most complex and time-consuming in the history of Congress.

The federal government had, since 1956, supported water pollution control through grant programs. But the grant funds were limited, and federal enforcement of environmental laws was a cumbersome process.

The 1972 act fundamentally altered the national approach to water pollution control, set ambitious goals, and gave generous funding to states, cities, and towns to reach the goals.

The Clean Water Act of 1972 emerged from several years of growing environmental awareness and concern. Many social experts trace the movement to a new view of the planet from widely published photo-





graphs of the earth from space taken in December 1968 by astronauts Frank Borman, James A. Lovell, Jr., and William Anders.

For the first time, people saw their earth as a fragile, watery planet. And they turned to technology, which had allowed the astronauts to reach the moon and look back, to solve the problem. Stories such as the sorry condition of Lake Erie — characterized as "dead" — and the polluted Cuyahoga River of Ohio — so filled with oil and debris that it caught fire — popularized the issue. Studies cited in speech after speech in Congress noted that 90% of watersheds in the United States were seriously polluted. Millions of gallons of raw wastewater were being dumped into famous American rivers — the Hudson, the Potomac. Little information was available about the thousands of toxic chemicals being used in industry — and discharged into waterways. Fish kills and oil spills made national headlines, and concern about pesticides — popularized by Rachel Carson's *Silent Spring* — grew into a national groundswell. Citizen activists adopted the protest tactics from the Vietnam era, bringing picket lines to industrial polluters.

Congress reacted with the Clean Water Act, which committed the nation to an expensive process of clean water cleanup. It followed the Clean Air Act, and led to other environmental acts of the early 1970s that addressed toxics, marine pollution, hazardous waste sites, and other troublesome environmental issues.

It was not, as Congressman Jones recognized, a "bargain basement" measure. In the decade that followed, the federal government would spend more than $30 billion on clean water projects. For many communities faced with insoluble water pollution control problems in the early 1970s, however, it would be money well spent.

National Clean Water Program Highlights

Since passage of the Water Pollution Control Act Amendments of 1972, Congress has appropriated more than $37 billion for grants to aid construction of water pollution control facilities. While this may seem a staggering sum, it is equal to about $10 per person per year for clean water projects.

- More than 15,000 wastewater treatment plants in the U.S. provide treatment for more than 100 million people. The vast majority of the plants treat wastes to "secondary" levels, by biological methods after primary treatment by sedimentation. The number of secondary plants grew by more than 38% between 1976 and 1980.
- As of December 1982, 2900 wastewater treatment projects using federal funds were under construction. More than 1000 more were awaiting construction. As these plants begin operation, water quality in thousands of streams, lakes, and rivers will improve even more.
- In addition to federal funding, states and local governments have contributed nearly $10 billion in funds for capital improvements during the past decade. Industries have contributed an estimated $16 billion in improved treatment facilities at factories. Yet wastewater treatment remains an incredible bargain. In a survey of 66 cities, the average family paid less than 50 cents per day for wastewater treatment.
- Estimates of the remaining needs vary. Information from the U.S. Environmental Protection Agency (EPA) shows that $57 billion will be needed to build enough plants to serve our country's population in the year 2000. If we wanted to treat storm water and build all the individual "collector sewers" that connect houses to city sewers, the total would be $118 billion.

Water Quality Success Stories

The Keys to Success

Experts agree that restoration of a river or lake requires many elements.

- **Recognizing the problem.**
  Citizens often are the first to realize when a river can no longer be used for fishing, swimming or other recreation.
- **Finding the solution.**
  Local, state, and federal agencies must work closely together to analyze alternatives to solve the problem. Industries can contribute valuable expertise.
- **Implementation.**
  Construction of needed facilities requires more coordination. Care must be taken to avoid delays. Financing is important; small communities should avoid overextending their resources.
- **Measuring the results.**
  Monitoring the quality of water takes persistence. Often, results take years to become measurable. The benefits of the effort need to be communicated, and vigilance is needed to maintain the success.

Haley Pond, Maine

Water quality success stories are not always about big rivers or metropolitan areas. Consider the story of Haley Pond and Rangeley Lake, Maine.

In 1972, the pond was choked by algae. On hot days, the pond would stink of decaying algae and large numbers of dead fish.

The problem was an inadequate wastewater treatment plant that discharged into the lake. Citizens voted to add advanced waste treatment, and the plant was approved by the U. S. Environmental Protection Agency. It was the first advanced waste treatment plant in a Maine municipality, and one of the earliest built under the Clean Water Act of 1972. Upgrading the plant cost about $500,000.

Within a few years, the pond and lake were healthy again. Credit for much of the success went to the treatment plant operator, Jerome Guevremont, who participated in every step of plant construction and performs daily water quality laboratory analysis.

The operator was cited by former Senator Edmund Muskie (D-Me.), one of the sponsors of the Clean Water Act, for his work in preventing deterioration of the lake.

Mohawk River, New York

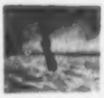
Since the time of the Mohawk Indians, the waters of the Mohawk River have been used by man. But the past century was almost too much for this 120-mile river, as the industrial era spawned cities, highways, and manufacturing plants along its once-scenic banks.

The river, originally a great resource, became a threat to life. In 1890, a typhoid epidemic at Cohoes, where the Mohawk meets the Hudson, killed hundreds. In 1891, a similar outbreak followed in Schenectady. Both were traced to water-borne municipal pollution.

Development of cities such as Rome, Utica, and Amsterdam increased the industrial load to the Mohawk during the early 20th century. New York State, one of the leaders in the industrial era, was also a leader in cleaning up pollution. Legislation enacted by the state (including a $1 billion Pure Waters Program) provided funds for treatment plants along the river.

By the early 1970s the Mohawk was on its way to recovery, and funds provided by the Clean Water Act helped the river revive itself enough so that fishing became a widespread recreation. Industrial cleanup continued during the 1970s, and by 1977 all industrial discharges received treatment.

In 1980, the final metropolitan area, Utica, eliminated its last raw wastewater discharge, and a tannery came into compliance. The river today, according to the State of New York, is swimmable and fishable.



The Potomac

When President Lyndon B. Johnson signed the Federal Water Quality Act of 1965 (one of the predecessors of the Clean Water Act), he vowed to reopen the Potomac for fishing and swimming by 1975.

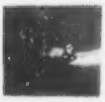
Johnson did not live to see his dream fulfilled. In fact, the Potomac didn't make the 1975 goal, because, like many other pollution control projects, the job was far more complicated than first envisioned.

However, since completion of major stages of the Blue Plains advanced wastewater treatment plant, the Potomac has shown a remarkable change from President Johnson's days.

Gone are the algal mats that clogged the river only blocks from the White House and along the famous monuments. In their place have emerged summertime raft races, fishing derbies, and waterfront renewal.

Bass have returned to the Nation's Capital. And swimming, banned in the Washington stretch of the Potomac since 1925, may become possible soon.

The cleanup of the Potomac was not without controversy. Local governments and federal agencies found cooperation on such a large scale nearly impossible. The cost for a regional program of new and upgraded treatment plants exceeded $1 billion. Questions remained concerning non-point pollution and future growth of the Washington area. But the river has come back to life, and for the first time in at least 50 years, it is no longer an embarrassment to the millions of tourists and residents in the Nation's Capital.



The Houston Ship Channel

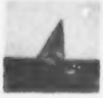
Termed "the most poisoned and potentially the most explosive body of water in the United States," the Houston Ship Channel was one of the often-cited horror stories of the early 1970s.

Its lower 10 miles were described by EPA as one of the most polluted waterways in the nation. Linking the fast-growing city of Houston with Galveston Bay (and the Gulf of Mexico), the channel had one of the heaviest concentrations of industrial and municipal discharges in the world. In one 1960 study, dissolved oxygen levels of zero were recorded for 16 miles. The channel was an open sewer, with the equivalent of a wastewater load of 2 million people dumped into it every day.

While environmentalists pronounced the channel dead in 1970, state and federal agencies began to work on the remains. The Texas Water Quality Board and EPA, under pressure from citizens, began enforcement actions before passage of the Clean Water Act. Following passage of the act, EPA awarded dozens of grants to city and regional agencies, totalling more than $800 million.

The lower channel has now been restored to the point where it provides a habitat for fish and other aquatic life — and the fish are thriving. Commercial fishing boats now find a profitable living in the lower channel. Even the pollution-sensitive oyster has made a comeback, and some oyster harvesting is allowed under state health regulations.

Houston Ship Channel is still no swimming hole. But it is far cleaner than it once was, and the benefits have had their effects in Galveston Bay, the most productive estuary in Texas.



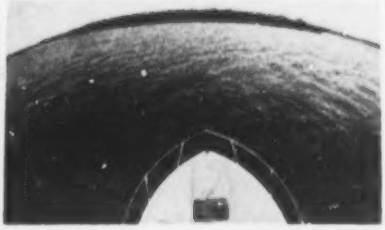
Lake Erie

One of the symbols of the environmental movement in the early 1970s was Lake Erie. Editorial writers determined that the eutrophication (or aging) of the lake was accelerating so fast that its death from pollution was imminent.

Concern about water quality and health led to closed beaches. Commercial and sport fishing in the lake virtually stopped. Drinking water from the lake often had taste and odor problems. Cleveland and Detroit, two of the largest cities on the lake, were ordered to reduce pollution dramatically. International cooperation between the U.S. and Canada led to an ambitious plan to reduce phosphorus, one of the culprits in the lake's pollution. The plan worked. Between 1975 and 1981, point source loading from major U.S. plants was reduced from 6719 to 2654 metric tons. Canadian efforts were similar.

Today the beaches of Lake Erie are open, commercial fishing is making a comeback, and sport fishermen are catching record numbers of walleyes.

The dramatic turnaround of Lake Erie stems from the fact that once pollution control measures were in place, their effects were felt quickly. The lake, shallowest of the Great Lakes, has a retention time of only about 3 years.



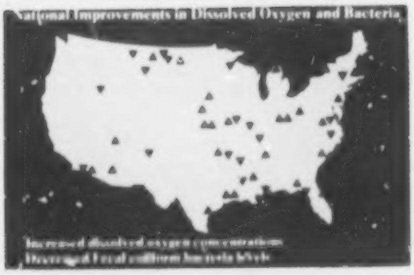
To continue the success of Lake Erie and protect the other Great Lakes, strong controls have been recommended by the International Joint Commission, an organization formed by a treaty between the U.S. and Canada. IJC has pointed to new problems on the lakes, including toxic pollutants. If the record on Lake Erie is an indication, the problems can be dealt with.

Across the U.S.: Cleaner Water

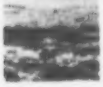
On the coastal ocean near **Los Angeles,** giant kelp flourish in an area once clouded by harbor dredging spoils and wastewater particles. A lush marine "forest" has returned, bringing with it sea lions and California brown pelicans. Clean water legislation and industrial regulation fostered the change. Wastewater sludge once dumped in the ocean is now sold as soil conditioner.

- The discharge of raw wastewater into the **Mississippi River** at Memphis, Tenn., was a common practice for decades. It ended in 1982 when a giant 84-inch pipeline was completed, part of a massive effort to treat the city's wastewater to secondary standards. The interceptor required six tunnels and five crossings of the Loosahatchie River.
- Large areas of **Long Island Sound** closed to shellfishing as recently as 1978, now meet New York State certification criteria. More than 14,000 acres of shellfishing waters in Nassau County have been "recertified," largely as a result of lower bacterial levels, the result of improved wastewater treatment. Waters near upgraded treatment plants in New York City showed a 99% reduction in bacterial levels from 1978 to 1982.

National Improvements in Dissolved Oxygen and Bacteria


▲ Increased dissolved oxygen concentrations
▼ Decreased fecal coliform bacteria levels

- In **New Hampshire,** a statewide effort has produced dramatic results in each of the state's five major watersheds. Industrial and municipal construction have alleviated the worst problems in the Androscoggin, the Merrimac, the Connecticut, the Pemigewasset, and Winnepesaukee river basins. In the 1960s, fumes from the Pemigewasset turned houses along the river black. Today, trout live in the river and it is considered one of the cleanest in New England.
- The **Little Blue River** near Kansas City, Missouri, received the effluent from 32 wastewater dischargers in 1977. This year, a regional treatment system connects 11 cities and two military installations. A single treatment plant, discharging treated wastewater into the far larger Missouri River, will eliminate wastewater flows into the Little Blue from an area of 224 square miles.



National Trends in Water Quality

While clean water success stories can be found in hundreds of cities, towns, and waterways across America, signs of improvement on a national scale are only beginning to emerge.

One problem in measuring national environmental success is the enormous variety of water resources across the country. In the U.S., there are more than 2 million river channels, three quarters of them shorter than 1 mile. These streams vary greatly in their chemical compositions, particularly in the very basic measurements of hardness and alkalinity. The natural oxygen levels of streams vary greatly, as do sediment loads, natural phosphates, and other chemical and biological parameters. How the land is used varies as well, from urban concentrations to agricultural uses.

Water quality data are not easily compiled as a profit and loss statement. In 1983, data from 1980 and 1981 are still being analyzed and only preliminary conclusions are available regarding the national state of water quality.

The major source of national water quality data is a monitoring system of the U.S. Geological Survey. The National Stream Quality Accounting Network (NASQAN) has collected data on water pollutants for several years.

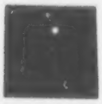
NASQAN data through 1980 indicated some improvements in dissolved oxygen, fecal coliform, suspended solids, and phosphorus. However, only a small proportion of these stations showed "statistically significant" trends. The most frequent improvements in dissolved oxygen — a key determination of a river's ability to sustain life — appear in the Northeast, South Central, and Great Plains states.

In bacterial contamination, analysis showed improvement in a majority of stations, when changes in stream flow from year to year were taken into account. Particular improvement was noted in the Southeast.

National implications of water pollution control will continue to be difficult to assess. In the tumultuous years of the early 1970s needed water quality monitoring efforts were often neglected, and as a result, valuable "baseline" data were lost. In recent years cuts in federal programs have jeopardized the analysis of data available and the publication of the results.

One useful measurement of improved water quality is the continued increase in water-based recreation. The number of fishing licenses has increased by 10 million in the past decade. The number of small boats in use has nearly doubled. Riverside parks, urban waterfront renewal, and city bass tournaments have sprung up across America.

National progress in water pollution will continue to become evident. The "bad old days" won't soon be forgotten.



The Decade Ahead: Maintaining Success

Much has been accomplished in the years since the Clean Water Act of 1972, but much remains to be accomplished.

The 1972 act did not address some important water quality problems. The act focused on the immediate pollution problems of getting an enforceable law passed and providing enough funding to towns and cities to address the conventional pollutants.

Congress looked at the act in 1977, found it basically workable, and reauthorized the act for another 5 years. In 1982, Congress looked again, and couldn't agree on changes. The forecast, however, is for few substantive changes other than delaying some of the early requirements. One requirement, for "fishable, swimmable" waters throughout the nation by 1983, will be met in many places, but not nationally.

As for results, Russell Train, former Chairman of the Council on Environmental Quality and later EPA Administrator, said in 1970: "We're an impatient people. We like to see results. We'll see improvements in the conditions of our rivers in two to four years. Our air will be clearer by then. But there will be pollutants cropping up that we don't even dream about now."

Many environmental problems of the past few years have, indeed, been from undreamed pollutants — dioxins, radioactivity, minute levels of exotic chemicals.

But there are other challenges as well — challenges that have little to do with exotic pollutants.

The national program of water pollution control faces an uncertain future. Changes in the law in 1981 recognized a trend apparent in the late 1970s and early 1980s — that the financial resource of the federal government was not a bottomless well. It is likely that the federal grant program will end sometime in the next 10 years. States and local governments will have to shoulder a growing percentage of the work to be done, and they have been having problems with funding as well.

Operation and maintenance of treatment plants built during the past decade — and before — will become a crucial factor in the next decade. Many of the plants were built using new technology. Operating these plants requires highly trained individuals, sensitive not only to the way the plants work, but also the effect on the streams and rivers.

Industries, which were the focus of much of the 1972 Clean Water Act, had far more success in reaching federal deadlines than did municipalities. But industries face new challenges as the Environmental Protection Agency completes its long-delayed effluent guidelines. These guidelines, written for more than two dozen industries, specify the "best available technology" (BAT) and other new requirements for cleanup.

Lessons learned during the past 10 years will be helpful for the thousands of communities currently in the final stages of design and construction of water pollution control facilities. Among the lessons is the realization that cleaning up a stream can be as challenging as landing a man on the moon.

Other challenges lie ahead. After 10 years, however, commitment to clean water continues strong. Industries and municipalities are entering the second decade of the Clean Water Act hopeful that it will prove as successful as the first.

The Water Pollution Control Federation is a nonprofit educational organization with more than 40 Member Associations in the U.S. and throughout the world. The 30,000 individuals in the Federation include scientists, engineers, citizens, and public officials involved in water pollution control. For more information on the Federation and its activities, contact **WPCF**, *2626 Pennsylvania Ave. N.W., Washington, DC 20037, (202) 337-2500.*

Mr. Sundquist. So the answer is grants; is that it?

Mr. Spear. I think the grants are important, sir, but we must not forget that the enforcement is perhaps more important. We have seen industry clean up their discharges much more rapidly and much more efficiently, merely through enforcement without any grants, than the municipalities have. So the present enforcement policy of the EPA needs to be continued.

Mr. Ledbetter. Well, I would just add that it's a combination, and industry has, for the most part in this country, done a good job and for the most part they're now in compliance with the permits that have been issued. The major thing we've found in reviewing the information from the States all across the country is the remaining water quality problems, for the most part, are focused on municipal wastewater discharges and nonpoint source problems, not industrial. So it's a combination, and to finish up the job we've got to follow up on what H.R. 8 gives us, the mechanism to do. Finishing the work with municipalities and their systems and also focus more on the nonpoint source program must be a future priority.

Mr. Roe. The gentlelady from Maryland.

Mrs. Bentley. Mr. Chairman, I have one question concerning "turnkey" projects, which have been referred to here today. I would like to know the degree to which State laws relating to contracting by public bodies would be in conflict with these "turnkey" projects. As Ms. Simmons and Mr. Westcott have indicated, many States use a competitive bidding system requiring that contracts be awarded to the lowest responsive, responsible bidder. Could any of you on the panel comment on the degree to which there's a conflict with State or local laws, and whether such laws would have to be amended or superseded?

Mr. Roe. Well, if the gentlelady from Maryland would yield, we are on the eleventh and three-quarter hour, and we have to vote, so would it be satisfactory to get that for the record, in writing?

Mrs. Bentley. That would be fine.

Mr. Roe. Mr. Westcott, if you would take that on for us and give us a response to that, I would appreciate it, because I want to conclude this panel at this time.

Mr. Westcott. I would be very pleased to do that, Mr. Chairman.

Mr. Roe. If you would do that, we would appreciate it, or anyone else that has something that they want to offer, by all means do so.

Mr. Stangeland. If I may be permitted one minute, Mr. Chairman, I would ask unanimous consent that each member be allowed to submit questions in writing for written response, and then just very quickly say thank you to this panel, and thank you for coming back today and allowing us more time. The other day we spent a great deal of time with the environmental panel, which was very beneficial, and more time than we would have been able to spend had we had to accommodate you the other day, and we appreciate your willingness to forego that testimony and come back before us today. Thank you.

Mr. Roe. I share those sentiments, too. I think it's been a very productive morning. We want to thank you for being with us, and we look forward to hearing from you further on those points that were at issue.

The committee will now recess until 1 o'clock, and the first witness up will be Ms. Fran Dubrowski of the Natural Resources Defense Council.

[Whereupon, at 12:10 p.m., the subcommittee recessed, to reconvene at 1 p.m. the same day.]

[Subsequent to the hearing supplemental questions were submitted to the panelists. The questions and responses follow:]

ARLAN STANGELAND
7TH DISTRICT MINNESOTA

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May 9, 1985

Mrs. Loretta Simmons, President
National Utility Contracts Association
1235 Jefferson Davis Highway, Suite 605
Arlington, Virginia

Dear Mrs. Simmons:

You testified last week before the Water Resources Subcommittee concerning reauthorization of the Federal Water Pollution Control Act.

A number of questions were not able to be asked during the course of this hearing. Would you please respond to the attached questions and provide a copy of your answers to Mr. Joseph A. Italiano, Public Works Committee Editor, for inclusion in the Water Resources Subcommittee's hearing record.

Additional questions, should there be any, will be forwarded as quickly as possible.

Thank you for your prompt attention to this request and for your excellent Subcommittee testimony.

Sincerely,

Arlan Stangeland
Member of Congress

AS/jdk

Attachment

QUESTIONS FOR
NATIONAL UTILITY CONTRACTORS ASSOCIATION

1. SOME HAVE CRITICIZED THE FEDERAL APPROACH TO ENVIRONMENTAL CLEANUP AS A SYSTEM THAT PROMOTES GOLD-PLATING IN DESIGN AND CONSTRUCTION PROGRAMS. THE ARGUMENT GOES THAT IF UNCLE SAM IS PAYING FOR YOUR PROJECT, YOU WANT THE BEST PROJECT MONEY CAN BUY. THE CRITICS ARGUE THAT ONE WAY TO AVOID GOLDPLATING AND OVER DESIGN IS TO REQUIRE THAT AFFECTED COMMUNITIES, AND ULTIMATELY THE PURCHASERS OF THE SERVICES, BE REQUIRED TO PAY A HIGHER PORTION OF THE COST. IN THIS WAY LOCAL COMMUNITIES WOULD HAVE TO BETTER ASSESS THE RELATIVE COSTS AND BENEFITS OF WATER POLLUTION PROBLEMS. TO WHAT EXTENT WOULD YOU SAY THAT THERE HAS BEEN GOLD-PLATING AND OVER DESIGN AND TO WHAT EXTENT HAS THE LOWERING OF THE FEDERAL SHARE OF THE CONSTRUCTION GRANTS PROGRAM RESULTED IN A REDUCTION IN GOLD-PLATING?

2. WHAT ADDITIONAL INCENTIVES SHOULD BE ADDED TO THE CLEAN WATER ACT TO REWARD NEW, INNOVATIVE TECHNOLOGY?

3. ARE THE INCENTIVES FOR NEW AND INNOVATIVE TECHNOLOGY RESULTING IN GOLD-PLATING?

4. TO WHAT EXTENT DO WE NEED TO PROVIDE INCENTIVES FOR SIMPLER MORE COMMON SENSE APPROACHES TO PROBLEMS SUCH AS INFILTRATION AND INFLOW?

Questions on behalf of Congressman Thomas DeLay

1. I understand EPA develops effluent limitation guidelines for a specific industry category based upon detailed evaluation by EPA of technical and economic data as well as comments by interested parties. Yet, it is proposed that if a company accepts a Best Professional Judgment (BPJ) permit before guidelines for that industrial category are finalized, that company cannot later have its permit reopened to incorporate subsequent guideline limits if they are less stringent than the BPJ permit. Don't rigid anti-backsliding provisions put a company at potential competitive disadvantage if it accepts a BPJ permit which turns out to be more stringent than subsequent effluent guidelines which other companies would be subject to? Isn't it the intention of the Clean Water Act that national point source category effluent guidelines be the basis for NPDES permit limitations?

2. The permit issuance process, including establishing effluent guidelines has rarely, if ever, resulted in issuance of permtis in a timely manner. First round permits were issued 3 to 5 years late; the same seems to be occurring with the current permits. Moreover, the permit application and review process typically takes 2 to 3 years. Hence, a 10-year permit term seems to be logical in light of past experiences. However, it seems to me that much of the benefit that will be gained by going to a 10-year permit is lost by the mandatory reopeners in this section. Wouldn't it be advisable to give EPA more discretion in reopening permits based on water quality effects except for inclusion of standards for toxic pollutants? How do you feel about this from the State and local level?

3. You mentioned the need to develop alternative means of funding wastewater treatment systems -- concluding that the most effective mechanism would be State revolving fund programs. Recently, the whole Committee on Public Works and Transportatoin held the first in a series of hearings on infrastructure in Ft. Worth, Texas. At that hearing Mark White, Governor of Texas, and Bob Bolen, Mayor of Ft. Worth, concurred that they are willing to pay their fair share of these water treatment projects -- meaning matching funds, interest payments, etc. How do you feel about alternative forms of payment?

NATIONAL UTILITY CONTRACTORS ASSOCIATION
1235 JEFFERSON DAVIS HIGHWAY • ARLINGTON, VIRGINIA 22202 • 703-486-5555

May 23, 1985

Mr. Joseph Italiano
House Committee on Public Works
and Transportation
2165 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Italiano:

The following pertains to my testimony presented April 30 before the Water Resources Subcommittee. Item Number One is my written response to a question presented by Mrs. Bentley (page 91 and 92 of the transcribed proceedings). Items 1(a) through 4(a) are in response to written questions recently received from Representative Stangeland. Items 1(b) through 3(b) are in response to written questions submitted by Rep. DeLay.

1.) While it is impossible to conduct a thorough investigation of the contracting laws governing each state in a short time frame, NUCA staff has conducted an informal survey of some fifteen states. Included in the survey were Maryland, Virginia, Massachusetts, Illinois, New Jersey, Pennsylvania and others. One hundred percent of the states contacted have some form of statute requiring that contracts awarded for the construction of publicly-financed projects be awarded using open competitive bidding. Given the unanimous response received from each state contacted, I feel certain it is safe to assume that the vast majority of states have similar statutes on the books.

In addition, while I have no hard information available, I am also certain that many municipalities have similar laws in effect. Some local governments in Illinois, for example, are "home rule" municipalities, and our contractor members there report these localities have "public bid" laws for projects built with public funds. In short, it is clear that most states would be required to amend their present laws to permit the EPA financing of turnkey projects.

As I stated during my remarks before your panel, only a relative handful of large firms have the expertise and financing available to participate in "design-and-build" projects. This is due to the high costs involved in designing the project prior to submitting a proposal to a community. In addition, there would be no system of "checks and balances" as exists in the open competitive bidding system.

We dig America

Under the present system, an independent design engineer presents the owner with detailed specifications ensuring that the plant will meet its estimated useful life. He offers the owner a wide list of options for the owner to consider. In most turnkey proposals, the owner is not presented a list of options to examine and, as a result, loses the oversight function enabling him to make the decisions necessary to build an effective treatment system at the lowest possible cost.

Lastly, NUCA contractors feel that while some turnkey projects may result in a cost savings, many more result in increased construction costs due to the lack of competition from other contractors who may be equally interested and qualified to build the project. As you know, most construction firms are small businesses that lack the expertise or financing to enter into turnkey projects, and they would effectively be "shut out" of the opportunity to participate. In a program that utilizes public financing such as the EPA construction grants program, all qualified construction companies should be given an equal opportunity to compete for a contract, as they are under the open competitive bidding system. Unfortunately, such open bidding is not part of most turnkey projects.

NUCA contractors remain opposed to the turnkey provision contained in H.R. 8 and strongly urge its deletion from the bill.

1(a) Many NUCA contractors would agree that a number of projects built during the 1970's incorporated "goldplating" in their designs. Included in this category are projects with a capacity to serve far more users than could be expected to make use of the facility in even the most optimistic forecasts of future growth. Other projects incorporated "state of the art," sophisticated equipment that proved much too expensive to construct and even more expensive and impractical to operate and maintain.

The reasons for such goldplating included the high level of funding that was pumped into the program in such a short period of time and EPA's inability to properly administer such a then still new and costly program. In addition, the fact that all phases of the design, engineering and construction were covered by 75% federal financing contributed to the problem. In our opinion, the "goldplating" problem has largely been eliminated as a result of the 1981 amendments to the Act. Step One and Step Two are no longer fully eligible for federal funding. There is no question that the drop in federal funding from 75% to 55% of construction costs will eliminate goldplating, although there is a fine line between reducing the federal share to a degree that will induce greater local responsibility in their design and construction-related decisions and to one that discourages communities from participating in the program due to the high costs that will be incurred through their 45% funding requirement. Again, in our opinion, goldplating could have been effectively eliminated by reducing the federal share to 65% without inhibiting participation in the program. In summary, however, it is much too early to properly assess the overall impact of the reduction in federal share to 55% given the fact it only recently became effective October 1, 1984.

2(a) NUCA feels no additional incentives should be added to the Clean Water Act to reward new, innovative technology unless greater administrative oversight is utilitzed to ensure the proper use of those funds. The association feels individual States should be given maximum flexibility in managing their federal grant funds -- free of Innovative & Alternative Project restrictions.

The current 4% minimum set-aside has, in our opinion, not been an effective tool. Many States have had a difficult time in spending their I & A money and, as a result, projects with a highly questionable I & A value are being built. For example, contractors report that some treatment works utilitzing standard technologies have been constructed under this program by simply installing skylights in the building and classifying them as "passive solar" technology, qualifying construction costs for I & A funding. This is just one example of what we perceive as other abuses of the 4% set-aside.

NUCA supports giving states the option of determining how much money to spend on I & A projects without the current 4% set-aside.

3(a) As was mentioned above, it has been the experience of a number of contractors that the current program did result in goldplating in some cases, but the '81 amendments rectified the problem.

4(a) Perhaps the greatest incentive would be to remove the structural disincentives that discourage cities from correcting Infiltration/Inflow (I/I). Although I/I is one of the three categories that remains fully eligible for federal EPA funding, it has been regulated almost to the bottom of State priority lists as a result of current EPA grant requirements. EPA should encourage State agencies to give I/I removal the equal funding status that the 1981 amendments clearly intended.

Mr. Italiano
May 23, 1985
Page Four

In addition, EPA should agressively promote the transfer of technical information on I/I removal to State regulatory agencies and encourage its distribution to individual municipalities within the States. Present efforts have been inadequate. Despite the importance placed on I/I removal in the 1981 amendments and the evidence indicating that I/I removal is far more cost effective than plant construction, most regulatory officials have not incorporated this into their thinking and planning efforts. The aggressive promotion of I/I removal by EPA is essential.

1(b) through 3(b) These questions relate to issues in which the association has not been involved. Although they certainly relate to issues crucial to the water pollution control effort, I would prefer not to answer these questions given our industry's relative unfamiliarity with the complexities relating to them.

It is a pleasure for me to provide you with this information. Please contact me if I can be of further assistance.

Sincerely,

Loretta B Simmons

Loretta B. Simmons
President

lm

QUESTIONS FOR THE
ASSOCIATION OF STATE AND INTERSTATE
WATER POLLUTION CONTROL ADMINISTRATORS

Requested by Congressman Arlan Stangeland

Question

1. You have heard the differing viewpoints that have been expressed by previous witnesses concerning whether or not EPA ought to have authority to issue fundamentally different factor variances. What are the views of the State Water Pollution Controls Program Administrators conerning this issue?

Answer

1. The Association has not taken a position on FDF, and because of it's limited application, ASIWPCA does not intend to develop a position on this issue.

Question

2. In addition to the Act's authorization for construction grants program appropriations, the allotment formula which determines each share of whatever amounts are appropriated for the program by the Federal Government expires the end of this year. How does ASIWPCA believe the allotment formula should be reauthorized? Should the current formula be extended or, conversely, should it be revised in some fashion? Please explain.

Answer

2. ASIWPCA members have generally concurred with your position that the existing allotment formula has been effective and resulted in major improvement in water quality throughout the nation. Therefore, the Association members have recognized the value of continuing the existing allotment formula to minimize disruption of the Clean Water Program. The State of Texas has been an exception to this position and has worked actively to change the formula. To expedite reauthorization of the Clean Water Act and minimize disruption and/or extensive delays in the program, the approach contained in H.R. 8 as of this hearing (April 30, 1985) seems most appropriate.

QUESTION FOR THE

ASSOCIATION OF STATE AND INTERSTATE

WATER POLLUTION CONTROL ADMINISTRATORS

Requested by Congressman Tom DeLay

Question

1. Recently, at the Fort Worth infrastructure hearings, Governor Mark White referred to a Joint Economic Committee Report entitled, "Hard Choices". In this study, municipalities were asked to rank in order of importance their infrastructure needs. Ranked 2 and 3 were wastewater treatment facilities (33.8%) and water distribution systems (28.4%) for a total of 62.2%. If the Federal Government doesn't offer some financial assistance either in the form of grants or low interest loans, how will the cities meet these needs?

Answer

1. Congress has established the July 1, 1988 deadline for municipal compliance. The U.S. Environmental Protection Agency has developed what is generally known as the Municipal Enforcement and Compliance Strategy articulating the Agency perspective that funding and compliance are decoupled and hence lack of funding is not seen by the Federal Government as an excuse for noncompliance. The members of the ASIWPCA have developed a position on compliance which is outlined in the ASIWPCA position document (attached).

REFERENCE: - COMPLIANCE STRATEGY

ASIWPCA POSITION

General -- The future credibility of the compliance programs depends upon improved integration of water quality analysis efforts, construction grants funding and management, and justified permit and enforcement actions. NPDES permits can be used to translate State water quality management strategies into facility specific enforceable requirements. State strategies should be developed to acknowledge the limitations of resources available to meet the goals and objectives of the Act and should give priority to compliance and enforcement efforts directed toward resolving significant water quality and/or public health problems.

A more effective system must be developed for prioritizing dischargers (i.e, Majors vs. Minors) for permitting and compliance purposes based on actual results achieved, problems encountered, key stream segments, and watershed areas. In the alternative, States should be able to establish a compliance priority rating system designed to surface problem dischargers and related water quality concerns and focus compliance resources on that basis in an annual cycle.

POTWs-- Compliance requirements should be derived from the strategy. Funding, program activities, and schedules must be consistent with the strategy.

It is imperative that the Federal financial assistance program be coordinated with the National Municipal Policy and the NPDES Enforcement Strategy to facilitate municipal compliance. We strongly recommend that a program under the Clean Water Act (CWA) for providing federal funding assistance after FY 85 for POTW construction include consideration of all of the following needs:

1. Projects which are "grandfathered" under the provisions of the 1981 Amendments,
2. backlogged projects which have in good faith proceeded with facilities planning and design but for which federal grant funds have not as yet been available, and
3. any other projects identified in municipal compliance plans submitted in accordance with the National Municipal Policy by October 1, 1985.

ASIWPCA also strongly recommends that any revisions to the federal construction grants program (loans, changes in the share ratios for grants, etc.) be phased in over a suitable transition period. Furthermore, the final form of federal funding should allow each State to tailor its financial assistance programs to meet individual State needs.

uestion

. You stated that local governments are unable to provide their share of the project cost. Yet in Fort Worth, Mayor Bob Bolen has stated that that city is continuing plans for a $200 million expansion of it's sewage treatment plant without Federal assistance. Don't misunderstand me, he would rather have some assistance. Would you care to explain how some cities are meeting these financial needs?

nswer

. Local governments vary in the ability to produce revenue for municipal sewage treatment works. While some communities are able to secure revenue bonds to finance such systems, other communities are not able to acquire the necessary funds. The ASIWPCA, the professional organization of State directors of the Clean Water Program, does not have the data on each community, but we do, however, have data which may be of relevance. See the ASIWPCA report, "America's Clean Water", page 8 (enclosed).

Of the more than $56 billion in public funds invested between 1972-1982, $34.9 billion came from the US EPA Construction Grant program, $14.9 billion were local expenditures to match Federal funds or independently construct facilities, $5 billion from States provided in the form of grants and/or loans, and $1.4 billion was under other Federal programs (e.g. Department of Housing and Urban Development, Farmers Home Administration, and the Economic Development Administration).

uestion

. If a special fund could be set up which would be dedicated to the entire infrastructure problem, would you support legislation requiring the States to give the cities 50% of all Federal monies received from this fund? I believe this was endorsed by both Governor White and Mayor Bolen in Fort Worth.

nswer

. ASIWPCA members are involved primarily with the implementation of the Clean Water Act and hence a position on the total infrastructure needs or the numerous options being considered by the Congress to deal with this issue has not been developed by the Association.

Question

4. The permit issuance process, including establishing effluent guidelines has rarely, if ever, resulted in issuance of permits in a timely manner. First round permits were issued 3 to 5 years late; the same seems to be occurring with the current permits. Moreover, the permit application and review process typically takes 2 to 3 years. Hence, a 10-year permit term seems to be logical in light of past experiences. However, it seems to me that much of the benefit that will be gained by going to a 10-year permit is lost by the mandatory reopeners in this section. Wouldn't it be advisable to give EPA more discretion in reopening permits based on water quality effects except for inclusion of standards for toxic pollutants? How do you feel about this from the State and local level?

Answer

4. The Association's position on 10-year permits is outlined below:

REFERENCE: (Section 402) - National Pollutant Discharge Elimination System:
TEN YEAR PERMITS

ASIWPCA POSITION

Provision of up to a ten year term for NPDES permits is acceptable provided flexibility is maintained to re-open a permit for good cause. Such modification capability is necessary to ensure adequate, continuing oversight by US EPA and the States.

ADOPTED: August 1982

RATIONALE

Expansion of permit terms from 5 to 10 years will help conserve scarce resources. However, permit modifications through reopener clauses should be allowed for cause. Adoption of effluent guidelines, identifications of toxics problems, or process modifications are examples of such circumstances. States should have ample opportunity to review discharger performance and related permit limitations.

ARLAN STANGELAND
7TH DISTRICT, MINNESOTA

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May 9, 1985

Mr. Ken Spear
Board of Directors
Water and Wastewater Equipment
  Manufacturers Association, Inc.
P. O. Box 17402
Dulles International Airport
Washington, D. C. 20041

Dear Mr. Spear:

You testified last week before the Water Resources Subcommittee concerning reauthorization of the Federal Water Pollution Control Act.

A number of questions were not able to be asked during the course of this hearing. Would you please respond to the attached questions and provide a copy of your answers to Mr. Joseph A. Italiano, Public Works Committee Editor, for inclusion in the Water Resources Subcommittee's hearing record.

Additional questions, should there be any, will be forwarded as quickly as possible.

Thank you for your prompt attention to this request and for your excellent Subcommittee testimony.

Sincerely,

Arlan Stangeland
Member of Congress

AS/jdk

Attachment

QUESTIONS FOR
WATER AND WASTEWATER EQUIPMENT MANUFACTURERS ASSOCIATION

1. SOME HAVE CRITICIZED THE FEDERAL APPROACH TO ENVIRONMENTAL CLEANUP AS A SYSTEM THAT PROMOTES GOLD-PLATING IN DESIGN AND CONSTRUCTION PROGRAMS. THE ARGUMENT GOES THAT IF UNCLE SAM IS PAYING FOR YOUR PROJECT, YOU WANT THE BEST PROJECT MONEY CAN BUY. THE CRITICS ARGUE THAT ONE WAY TO AVOID GOLDPLATING AND OVER DESIGN IS TO REQUIRE THAT AFFECTED COMMUNITIES, AND ULTIMATELY THE PURCHASERS OF THE SERVICES, BE REQUIRED TO PAY A HIGHER PORTION OF THE COST. IN THIS WAY LOCAL COMMUNITIES WOULD HAVE TO BETTER ASSESS THE RELATIVE COSTS AND BENEFITS OF WATER POLLUTION PROBLEMS. TO WHAT EXTENT WOULD YOU SAY THAT THERE HAS BEEN GOLD-PLATING AND OVER DESIGN AND TO WHAT EXTENT HAS THE LOWERING OF THE FEDERAL SHARE OF THE CONSTRUCTION GRANTS PROGRAM RESULTED IN A REDUCTION IN GOLD-PLATING?

2. WHAT ADDITIONAL INCENTIVES SHOULD BE ADDED TO THE CLEAN WATER ACT TO REWARD NEW, INNOVATIVE TECHNOLOGY?

3. ARE THE INCENTIVES FOR NEW AND INNOVATIVE TECHNOLOGY RESULTING IN GOLD-PLATING?

4. TO WHAT EXTENT DO WE NEED TO PROVIDE INCENTIVES FOR SIMPLER MORE COMMON SENSE APPROACHES TO PROBLEMS SUCH AS INFILTRATION AND INFLOW?

Questions on behalf of Congressman Thomas DeLay

1. I understand EPA develops effluent limitation guidelines for a specific industry category based upon detailed evaluation by EPA of technical and economic data as well as comments by interested parties. Yet, it is proposed that if a company accepts a Best Professional Judgment (BPJ) permit before guidelines for that industrial category are finalized, that company cannot later have its permit reopened to incorporate subsequent guideline limits if they are less stringent than the BPJ permit. Don't rigid anti-backsliding provisions put a company at potential competitive disadvantage if it accepts a BPJ permit which turns out to be more stringent than subsequent effluent guidelines which other companies would be subject to? Isn't it the intention of the Clean Water Act that national point source category effluent guidelines be the basis for NPDES permit limitations?

2. The permit issuance process, including establishing effluent guidelines has rarely, if ever, resulted in issuance of permtis in a timely manner. First round permits were issued 3 to 5 years late; the same seems to be occurring with the current permits. Moreover, the permit application and review process typically takes 2 to 3 years. Hence, a 10-year permit term seems to be logical in light of past experiences. However, it seems to me that much of the benefit that will be gained by going to a 10-year permit is lost by the mandatory reopeners in this section. Wouldn't it be advisable to give EPA more discretion in reopening permits based on water quality effects except for inclusion of standards for toxic pollutants? How do you feel about this from the State and local level?

WWEMA

Water & Wastewater Equipment
Manufacturers Association, Inc. •
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June 3, 1985

The Honorable Arlan Stangeland
1526 Longworth House Office Building
Washington, DC 20515

Dear Mr. Stangland:

The Water and Wastewater Equipment Manufacturers Association is pleased to respond to your request for comments on goldplating and use of innovative technology as well as those of Mr. DeLay on permit issuance. Please forgive my delay in responding. I will answer your questions in the order in which they were asked.

First, you are correct in your assumption that there has been extensive goldplating in design and construction programs. The overdesign results primarily because the federal government has paid the major portion of the cost of sewage treatment facilities in the past. Congress has taken the appropriate measures to reduce the incidence of goldplating by reducing the federal share to 55 percent. However, since many plants currently under construction are being built based on a 75 percent federal share, it is simply too soon to adequately evaluate the effect of the reduction of the federal share. I believe that over time, as more plants are built based on the 55 percent federal share, goldplating and overdesign will decrease significantly.

Second, WWEMA has gone on record before the House subcommittee on water resources and the Senate Environment and Public Works committee in support of retaining the innovative and alternative technology set-aside at four percent for the duration of the construction grants program.

As suppliers of technology used for treating our nation's water resources, WWEMA members have dedicated their research efforts, and dollars, to developing new techniques for improving the quality and quantity of the nation's waters through conservation and reuse. The I/A program provides an incentive to companies to devote scarce resources to research. It must remain available to ensure continued investment in developing cost-effective treatment techniques.

While much has been accomplished under the I/A program, there remains a hesitancy on the part of the engineering community to support using I/A processes in a given project. As one WWEMA member explained, "the engineering firms don't want to learn anything new; they want to go to Safeway" to purchase known, conventional treatment processes.

The problem results in large part because engineers seeking to use an innovative or alternative technology are faced with additional paperwork and increased costs. In addition, using an I/A technology represents a potential risk to the engineer's reputation without an incentive to take that risk. As a result, the design engineer will often select the conventional approach in lieu of a new concept.

WWEMA can suggest two possible solutions; I am sure you will be able to identify additional ones. First, as I suggested in our testimony before your subcommittee, the engineer might be given additional incentives, such as a "share in the rewards," for successful use of an I/A process. The reward could take the form of sharing in the savings resulting from use of a new technology or an additional payment to the engineer. A second alternative might be to request that the municipality pay the engineer an increased fee to cover the costs of additional paperwork necessary to obtain approval of an I/A process.

Your third question, relating to goldplating from incentives for innovative technology, can be answered in one word: no. The strictures and additional costs placed on engineers and equipment suppliers who opt for an innovative technology preclude any attempt at goldplating. In addition, innovative technologies, almost by definition, require an additional cost; once these technologies are accepted and become more commonly used, their cost decreases.

Finally, WWEMA has not been involved with such problems as infiltration and inflow. However, it would seem sensible to provide those incentives necessary to address the major problems associated with plant performance.

Turning to Mr. DeLay's questions on permits, WWEMA cannot provide a detailed response. WWEMA does not believe that anti-backsliding provisions place a company at a competitive disadvantage. Effluent limitations specified in an NPDES permit can be adjusted at the time the permit expires. However, allowing a company to increase the pollutants it discharges, for whatever reason, flies in the face of the goals of the Clean Water Act, which calls for reduction and eventual elimination of water pollution from municipal sewage treatment plants and from industrial facilities. The Act sets two national goals for clean water: fishable/swimmable waters by 1983 and zero discharge of pollutants into the nation's waters by 1985.

WWEMA believes the NPDES permit period should be kept at the current five-year limit. We can, however, understand the approach taken by the House Public Works and Transportation Committee that would allow some permits to be issued for as long as 10 years.

Under current law, NPDES permits are issued for five year periods either by EPA or by states with delegated authority. At the end of the five-year permit period, the discharger must apply for a new permit, which when issued will incorporate any more stringent effluent limitations promulgated that apply to the discharge being permitted. The permit renewal application must include an analysis of the discharge for all Clean Water Act §307 toxic pollutants, not just those listed in the original permit. Thus, the five-year NPDES permit has been called the primary regulatory tool for controlling toxic discharges.

EPA has been slow in issuing new and revised permits, resulting in a backlog of major proportions; some 40 percent of existing NPDES permits have expired and revised permits have not been issued. However, EPA expects to eliminate the backlog of expired major municipal and industrial permits by the end of fiscal year 1986. The delay in issuing permits has been blamed primarily on two issues: the five year permit period and the lack of BAT guidelines for industrial dischargers.

Evidence of the shrinking backlog is supported by EPA's efforts to issue those guidelines; 24 of 29 industrial categories were completed by the end of 1984. Guidelines for the remaining five categories should be completed by mid-1986.

Efforts to increase the length of an NPDES permit from five to 10 years are usually tied to a reopener clause that would require a permit to be reopened and upgraded when water quality criteria are revised or adopted by a state.

The second method proposed for decreasing the backlog and increasing the number of permits issued is to distinguish between major permits for toxic and nonconventional pollutants and minor permits for conventional pollutants. Permits for toxics would be issued for five years while those for conventional pollutants would be issued for the longer ten-year period.

The problem with issuing 10-year permits for dischargers of conventional pollutants is similar to that of issuing 10-year permits for toxic and nonconventional dischargers: the effluent will not be reassessed for 10 years, potentially allowing new pollutants to enter the receiving waters during that time with no controls. This problem is addressed in the proposal in HR 8 for 10-year permits under specified conditions: the applicant must have consistently complied with prior permits; and either toxic and nonconventional pollutants must not be detectable in the effluent or they must be present only in trace amounts. Permits issued for terms greater than five years must be amended whenever new toxic pollutants are identified or more stringent state water quality limitations are issued.

Finally, I would like to respond to a question about turnkey projects asked by Congresswoman Bentley at the subcommittee hearing. I believe the problem Mrs. Bentley identified has more to do with the concept of "turnkey" versus that of "design/build" projects. Under the provision in HR 8, competitive bidding would still occur if a municipality chose the design/build option.

WWEMA endorses the concept of turnkey (design/build) projects in which one party is responsible for the planning, design and construction of a wastewater treatment plant. This package approach is commonly used by industrial dischargers to meet their NPDES permit requirements; it is a fact that industrial firms have a better compliance track record than their municipal counterparts. Turnkey construction could decrease by one-third to one-half the time required under current municipal methods for sewage treatment plant construction.

The attractive feature of a design/build contract is the accountability of a single party for designing, constructing and guaranteeing performance of a POTW. Under a design/build approach, prior to preparation of final plans and specifications, the engineer will evaluate alternative methods and then select the most effective one. The engineer may solicit bids from competing manufacturers and select equipment based on purchase cost as well as competition, innovative techniques, quality, service, operation know-how, and how the equipment fits the overall scheme of the process. The manufacturer submits detailed drawings, which are incorporated into the final plans and specifications. Thus, the engineer and user control the equipment quality and technological balance of the plant. This method leads to lower construction costs and speeds up the time cycle for plant construction.

Under the current method used by the public sector, the contractor selects the equipment. The markup that the contractor adds inflates the cost of the equipment some 10 to 20 percent and provides no benefit to the user or the equipment manufacturer. In reality, it provides no benefit to the contractor either, since including the mark-up in the contract extends his risk and financial obligations.

Thus, many contractors, especially minority contractors, cannot afford to bid a contract because the overall cost is beyond their borrowing or bonding capabilities. Excluding the equipment cost from the contract would reduce the overall contract fee and allow more contractors to bid a project.

The design/build approach encourages a team effort while providing quality facilities at a cost savings. By contracting with one party, the municipality is assured that the project will meet its effluent limitations in a timely, cost-effective fashion for the life expectancy of the plant.

WWEMA would welcome the opportunity to work with you and the other members of the Water Resources Subcommittee to ensure that amendments to the Clean Water Act are enacted into law as soon as possible. Thank you for the opportunity to clarify our positions on these issues.

Sincerely,

Kenneth Spear

KENNETH SPEAR
Member of the Board, WWEMA

KS/FS

cc: Cong. Tom DeLay
Cong. Helen Bentley
Mr. Joseph Italiano

ARLAN STANGELAND
7TH DISTRICT, MINNESOTA

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May 9, 1985

Mr. Robert R. Perry
Assistant Executive Director
Water Pollution Control Federation
2626 Pennsylvania Avenue, N.W.
Washington, D. C. 20515

Dear Mr. Perry:

You testified last week before the Water Resources Subcommittee concerning reauthorization of the Federal Water Pollution Control Act.

A number of questions were not able to be asked during the course of this hearing. Would you please respond to the attached questions and provide a copy of your answers to Mr. Joseph A. Italiano, Public Works Committee Editor, for inclusion in the Water Resources Subcommittee's hearing record.

Additional questions, should there be any, will be forwarded as quickly as possible.

Thank you for your prompt attention to this request and for your excellent Subcommittee testimony.

Sincerely,

Arlan Stangeland
Member of Congress

AS/jdk

Attachment

QUESTIONS FOR
WATER POLLUTION CONTROL FEDERATION

1. ON PAGE 6 OF YOUR TESTIMONY, YOU ADVOCATE IN FAVOR OF A REQUIREMENT TO DEDICATE ALL STATE REVOLVING FUND MONEY TO WASTEWATER TREATMENT CONSTRUCTION. TO WHAT EXTENT DO YOU FEEL THAT THIS MONEY SHOULD ALSO BE MADE AVAILABLE TO STIMULATE ADVANCED OR INNOVATIVE TECHNOLOGY WHICH MIGHT RESULT IN IMPROVED TREATMENT CAPABILITY?

2. ON PAGE 6 OF YOUR TESTIMONY YOU ADVOCATE TREATING REVOLVING FUND PAYBACK AMOUNTS AS STATE REVENUES RATHER THAN AS FEDERAL FUNDS. COULD YOU ELABORATE ON WHAT IS THE SIGNIFICANCE OF TREATING THE MONEY AS STATE VERSUS FEDERAL FUNDS?

3. SOME HAVE CRITICIZED THE FEDERAL APPROACH TO ENVIRONMENTAL CLEANUP AS A SYSTEM THAT PROMOTES GOLD-PLATING IN DESIGN AND CONSTRUCTION PROGRAMS. THE ARGUMENT GOES THAT IF UNCLE SAM IS PAYING FOR YOUR PROJECT, YOU WANT THE BEST PROJECT MONEY CAN BUY. THE CRITICS ARGUE THAT ONE WAY TO AVOID GOLD-PLATING AND OVER DESIGN IS TO REQUIRE THAT AFFECTED COMMUNITIES, AND ULTIMATELY THE PURCHASERS OF THE SERVICES, BE REQUIRED TO PAY A HIGHER PORTION OF THE COST. IN THIS WAY LOCAL COMMUNITIES WOULD HAVE TO UNDERTAKE A BETER ASSESSMENT OF THE RELATIVE COSTS AND BENEFITS OF WATER POLLUTION PROBLEMS. TO WHAT EXTENT WOULD YOU SAY THAT THERE HAS BEEN GOLD-PLATING AND OVER DESIGN AND TO WHAT EXTENT HAS THE

LOWERING OF THE FEDERAL SHARE OF THE CONSTRUCTION GRANTS PROGRAM RESULTED IN A REDUCTION IN GOLD-PLATING?

4. WHAT ADDITIONAL INCENTIVES SHOULD BE ADDED TO THE CLEAN WATER ACT TO REWARD NEW, INNOVATIVE TECHNOLOGY?

5. ARE THE EXISTING INCENTIVES FOR NEW AND INNOVATIVE TECHNOLOGY RESULTING IN GOLD-PLATING?

6. TO WHAT EXTENT DO WE NEED TO PROVIDE INCENTIVES FOR SIMPLER, MORE COMMON SENSE APPROACHES TO PROBLEMS SUCH AS INFILTRATION AND INFLOW?

7. ON PAGES 7 AND 8 OF YOUR TESTIMONY YOU INDICATE THAT AS A RESULT OF INCENTIVES IN THE 1981 AMENDMENTS, INNOVATIVE AND ALTERNATIVE TECHNOLOGIES HAVE BEEN ENCOURAGED. COULD YOU ASSESS HOW WELL THESE INCENTIVES HAVE WORKED AND GIVE SOME EXAMPLES OF SOME NEW TECHNOLOGY THAT HAS BEEN DEVELOPED IN RESPONSE TO THOSE INCENTIVES?

Questions on behalf of Congressman Thomas DeLay

1. I understand EPA develops effluent limitation guidelines for a specific industry category based upon detailed evaluation by EPA of technical and economic data as well as comments by interested parties. Yet, it is proposed that if a company accepts a Best Professional Judgment (BPJ) permit before guidelines for that industrial category are finalized, that company cannot later have its permit reopened to incorporate subsequent guideline limits if they are less stringent than the BPJ permit. Don't rigid anti-backsliding provisions put a company at potential competitive disadvantage if it accepts a BPJ permit which turns out to be more stringent than subsequent effluent guidelines which other companies would be subject to? Isn't it the intention of the Clean Water Act that national point source category effluent guidelines be the basis for NPDES permit limitations?

2. The permit issuance process, including establishing effluent guidelines has rarely, if ever, resulted in issuance of permtis in a timely manner. First round permits were issued 3 to 5 years late; the same seems to be occurring with the current permits. Moreover, the permit application and review process typically takes 2 to 3 years. Hence, a 10-year permit term seems to be logical in light of past experiences. However, it seems to me that much of the benefit that will be gained by going to a 10-year permit is lost by the mandatory reopeners in this section. Wouldn't it be advisable to give EPA more discretion in reopening permits based on water quality effects except for inclusion of standards for toxic pollutants? How do you feel about this from the State and local level?

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June 10, 1985

The Honorable Arlan Stangeland
[illegible] Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Stangeland:

Thank you very much for your interest in my testimony of April 30. Upon receiving your questions, I shared them with Federation members who have direct experience in the areas about which you enquire. Their answers are presented below along with general Federation opinion. Full information on the people who responded is attached separately.

QUESTION: WPCF advocates dedicating all state revolving money to wastewater treatment construction. To what extent do you feel that this money should also be made available to stimulate advanced or innovative technology which might result in improved treatment capability?

ANSWER: The present program to encourage innovative and alternative (I&A) technology is effective enough, according to Mr. Paul Kuhn, Mr. Walter Garrison and most Federation members. There are other ways to encourage more I&A projects that do not involve increasing the amount or percentage of federal money available.

QUESTION: WPCF advocates treating revolving fund payback amounts as state revenues rather than as federal funds. Could you elaborate on what is the significance of treating money as state versus federal funds?

ANSWER: We recommend treating state revolving fund (SRF) paybacks as state monies because that encourages states to switch from grants to SRFs. First, federal auditing and accounting time will be reduced. Second, paybacks could be used for treatment projects that are not eligible under the grants program, or which are only partly eligible. Stormwater runoff control is an example of the first case, collector sewers of the second. Third, it will increase the likelihood that the fund will be continued beyond the federal commitment, since ineligible needs under the program have their own supporters within each state and will become more important as "core" needs are met. And fourth, it will gradually phase out federal interest in individual projects while concentrating federal review authority on the fiscal integrity of the SRF itself.

58th Annual Conference - Kansas City Convention Center, Kansas City, Missouri, October 6-10, 1985

QUESTION: To what extent would you say that there has been "gold-plating" and over-design, and to what extent has the lowering of the federal share of the construction grants program resulted in a reduction in gold-plating?

ANSWER: Our three respondents do not believe there is a significant amount of gold-plating in the grants program. Most WPCF members agree. One of the major reasons why this is so is the value engineering (VE) program that Congress designed into the 201 process. Yet questions about gold-plating arise. In May 1981 The Washington Post ran a 4-part series that purported to be an "expose" on the grants program. Much of the public concern about gold-plating can be traced to that series, an earlier one in The Baltimore Sun, and other one-part articles of similar nature elsewhere.

We took strenuous exception to the Post's allegations. A copy of our 1981 letter to The Washington Post is enclosed. Let me restate it's main point here: most of the cases presented in the Post's story were **not** part of the 201 construction grants program. They were conducted under earlier federal programs. Indeed, it was precisely **because** Congress was aware of problems with 201's predecessors that it set such rigorous controls on 201 projects. But, instead of congratulating Congress for having the foresight to eliminate a potential hazard, the news media chastized it for solving a past problem.

Like a perennial weed, the gold-plating question keeps coming up. Why? We believe it is because there are cases of increased construction costs that a reporter or layman thinks are excessive, but which are not. Most cost increases have nothing to do with gold-plating. They occur because the grants program is designed the way it is. Here are four legitimate reasons why project costs may be greater than anticipated.

1. "Two brand names or equal": this requirement in the federal procurement regulations forces communities to accept an untested product or process if the manufacturer's specifications make it appear "equal" to a proven competitor that costs more. The problem is, no institution in the United States tests wastewater treatment equipment to see if the specifications are accurate. At this time, there is no functional equivalent of the Underwriters Laboratory for water pollution control. So, Mr. Vasuki points out, an untested item is accepted because the regulations say the grantee must take the lowest bid. When the item doesn't work and has to be jury-rigged or replaced, the grantee puts in a change order to increase his grant. To an outsider, such situations appear to be gold-plating. But they are not.

2. Turnkey projects are outlawed: "Turnkey" projects, that is, ones in which a single firm gets one contract to design, build, and--in some cases--operate a facility through the break-in period are not allowed under the grants program. Thus, the grantee hires one firm to design the facility, a second to construct it. The construction firm may come up against a problem not anticipated by the design firm. This can force a re-design or an adaptation of equipment that leads to higher costs.

WPCF does not have a position on turnkey contracting. Some members support it, others oppose it. Properly handled, however, turnkey may be a way to control some cost increases caused by poor installation or operation. Turnkey contracts make a firm live with its design decisions, rather than passing them off on unsuspecting grantees.

We realize that some firms and treatment authorities oppose turnkey contracts under 201. And it is true that turnkey is not universally applicable. But there are situations in which it is approriate, and the Act could be amended to allow its use.

Mr. Vasuki offers one example of how turnkey contracts can save the government money. His state agency managed the construction of a solid waste handling facility. Half of the operation was supported by the 201 grants program; the other half by another federal program that allowed turnkey. The portion funded by 201 aid cost $33.4 million and had cost overruns of $1.0 million. The other half cost $24.0 million and had cost overruns of $42,000. Mr. Vasuki believes that turnkey contracting for the 201-funded portion would have saved a significant amount of money.

3. Retroactive federal regulations: Sometimes project costs are driven up by changes in federal requirements. Plans have been drawn up under one set of regulations, only to be re-drawn when the rules are changed. Where the changes have little to do with the capability of the facility, revisions cost needless time and money.

4. Community concerns that must be met. Landscaping and exterior finishing are sometimes cited as examples of goldplating. But there are cases in which such extras are crucial to the success of a project.

   For example, Mr. Kuhn reported a project in which upgraded landscaping and exterior improvements were **required** by a court order resulting from community objections to the location of the facility. Putting the treatment plant in the most cost-effective location meant "over-designing" the exterior and grounds--in the strict sense of the term. But was it gold-plating? Since it secured community support, we don't think so.

Our respondents and our members believe that lowering the federal share from 75% to 55% will discourage over-designing facilities. WPCF supported this amendment in 1981 and we commend your committee for supporting it as well. This change did not go into effect until FY 1985, so convincing evidence is not available yet.

One final comment on the question of gold-plating. Mr. Vasuki suggests that the few cases of over-designed plants are the fault of inexperienced state project reviewers. The grants program is now over 10 years old. The chance that an excessive design would pass unnoticed through the 201 review process at this point is very slim in most states.

QUESTION: What additional incentives should be added to the Clean Water Act to reward new, innovative technology?

ANSWER: Our experts are divided in their answers to this question. Paul Kuhn believes that no further incentives are necessary. In fact, he maintains that the definition of "innovative and alternative" has been stretched beyond the boundaries of good engineering judgment just to qualify certain proposals for I&A funding. Kuhn is convinced that I&A awards generate more redtape than the extra federal funding is worth.

Mr. Walter Garrison suggests a simple way of encouraging more I&A projects: Promote the successul ones more widely. This is easy. It costs very little money. And the innovator benefits by getting the recognition he deserves. Garrison offers dual media filtration and fine-bubble aeration as examples of successfull I&A projects that have wide application.

QUESTION: Are the existing incentives for new and innovative technology resulting in gold-plating?

ANSWER: Our reviewers are sure the answer to this questions is "no."

QUESTION: To what extent do we need to provide incentives for simpler, more common-sense approaches to such problems as infiltration and inflow?

ANSWER: Mr. Garrison and Mr. Kuhn agree that the current I&I program is not the most effective approach. Mr. Kuhn asserts that no sewer system is completely watertight. He says the real question about controlling I&I is "How much I&I can you treat economically?" And he maintains that this question cannot be answered through administrative fiat. A national standard does nothing to encourage simpler, more effective solutions, according to Kuhn. He favors allowing each community to decide the most cost-effective balance between eliminating I&I sources and treating I&I flows to a plant.

Mr. Garrison agrees that the current program is unrealistic and impractical. He argues that we should treat the two phenomena separately. In separate sewer systems, treatment authorities should do everything possible to eliminate inflow because that is relatively economical and easy. Eliminating sources of infiltration, however, is more expensive and difficult. Garrison believes that federal authorities should require inflow control, but that they should leave infiltration control to be decided by each treatment authority.

This concludes our answers to your questions. Should you or anyone else on the committee be interested in additional information, please let me know. We look forward to working with you at any time.

Sincerely yours,

Robert R. Perry
Assistant Executive Director

RRP:aes

cc: John Doyle
Errol Tyler
Joseph Italiano

A LIST OF REFERENCES FOR MORE INFORMATION ON THE POINTS CONTAINED IN R. PERRY'S JUNE 10 LETTER TO CONGRESSMAN ARLAN STANGELAND

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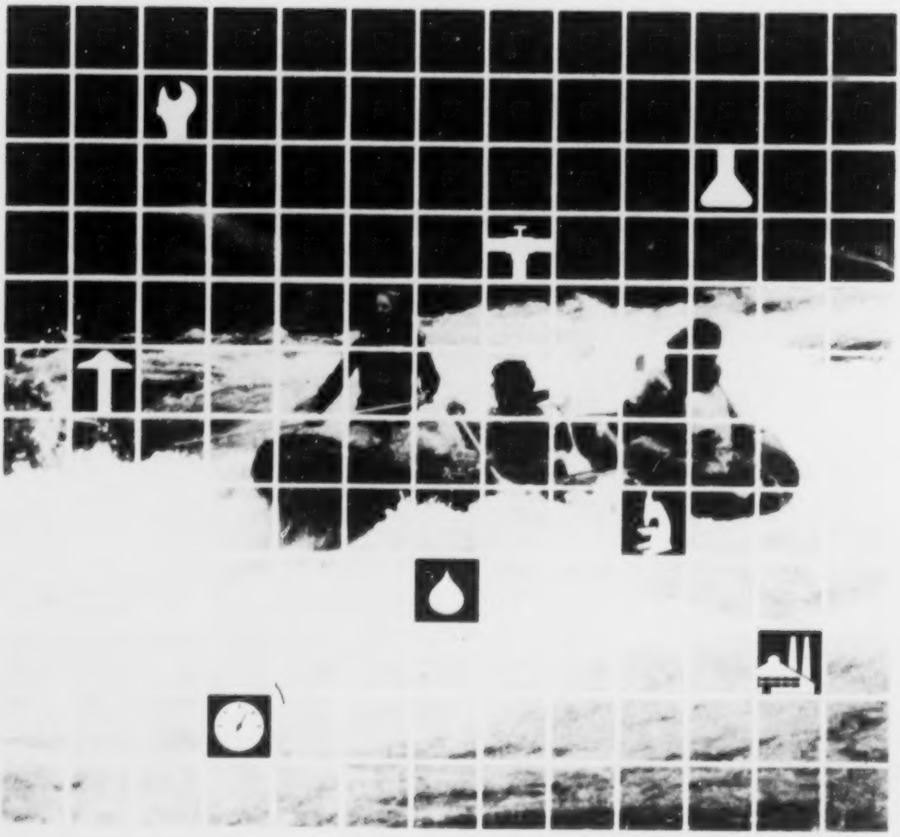
JOURNAL
Water Pollution Control Federation

WPCF takes exception

Press series on clean water program challenged

Financing water treatment in other countries



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MONITOR

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Press series on clean water program challenged

In early May, the Washington Post *published a five-part series, "Dirty Water—A Federal Failure," that was critical of the national clean water program in general and of implementation of the construction grants program in particular. To support its claim that the clean water program had failed, the* Post *cited examples of treatment plant construction projects fraught with poor design, over-reliance on high technology, mismanagement, and fraud; of extensive municipal treatment plant noncompliance; of profiteering by the private sector, and of sophisticated treatment measures forced on a defenseless public by EPA. The series concluded that there is no proof the water is any cleaner 9 years after the program began. The Federation took strong exception to the series, and WPCF President Carmen F. Guarino sent the following response to* Washington Post *editors.*

This letter is a response to *Washington Post* reporter Patrick Tyler's five-part series on the national clean water program. That series began in your May 10 Sunday edition with a front page lead claiming:

> "Elaborate hulks of expensive and failing machinery litter the American landscape, the wreckage of Washington's good intention. They are monuments built by one of the nation's largest and most idealistic public works programs: the drive to clean up America's water. And much of it doesn't work."

I take strong exception to Mr. Tyler's conclusions and to the evidence he offers in support of them. I know I speak for most of my colleagues in the clean water community when I say that there has been much progress, that the money has not been wasted, and that the programs created by federal and state law are helping the country get where it wanted to be when it passed the Federal Water Pollution Control Act of 1972.

Mr. Tyler's series is replete with half-truths, over-generalizations, inaccurate information, and allegations that he cannot prove. It is not necessary that you publish any of what I write here, but I believe you owe it to yourselves to read my letter carefully. Your reporter's work had some basic flaws that undercut any attempt he tried to make at encouraging a reasoned evaluation of what we have done with our national program so far. I was appalled to find he checked with only one professional group—the American Consulting Engineers Council—in the course of his research and that even that contact was superficial. There are four major areas discussed in the Tyler series that I wish to address.

Post-1972 versus pre-1972

One of the unfortunate flaws in Mr. Tyler's series is the lack of discussion of the radical changes that occurred when the 1972 Federal Water Pollution Control Act Amendments were passed. First of all, it is important to remember that water pollution control in the U.S. did not begin in 1972; as a matter of fact, treatment plants have been in existence since the 1890s.

In 1968, there were 12,467 wastewater treatment plants in operation in the U.S., 80 percent of which were providing a treatment level then known as "secondary treatment." At that time, secondary was considered to be any treatment process beyond "primary treatment" if local authorities decided such treatment were needed to improve receiving water quality.

It is important to distinguish what secondary treatment before and after 1972 was, because this distinction is the basis for much of the controversy regarding the success of the construction grants program. Prior to 1972, secondary treatment referred to any treatment process beyond primary treatment, at that time often accomplished with trickling filters that were capable of providing 50–85 percent removal of biochemical oxygen demand and suspended solids. In 1973, with the advent of the Federal Water Pollution Control Act, secondary treatment was redefined. No longer a description of a process, it was defined in terms of the desired effluent quality—85 percent removal of biochemical oxygen demand and suspended solids *or* effluent limits of 30 mg/l for the same parameters on a monthly average, whichever was more stringent. The new definition was applied through a national discharge permit system for each treatment plant.

Those existing treatment plants not in compliance with the 1972 definition of secondary treatment were to be put on a compliance schedule designed to upgrade their plant's performance to secondary treatment levels by July 1, 1977. The Environmental Protection Agency was faced with the massive task of issuing some 59,000 municipal and industrial discharge permits and took this on as its first priority. Compliance schedules came second. To move the permitting process along, EPA staffers simply applied the 30/30 mg/l or 85 percent removal rules to each discharge permit without stipulating a compliance schedule by which these requirements could be accomplished. In effect, this meant that a majority of wastewater treatment plants in the U.S. had permit requirements that they could not meet without future improvements.

The important point here is that treatment plants designed and built before 1972 could conform to the "old law" requirements but not meet the "new law" definition. This is still a major problem with the construction grants program and with the findings of the recent General Accounting Office report that Tyler repeatedly referred to in his series. Correcting this problem requires careful planning, adequate funds, and time—three prerequisites of the construction grants program that have never been sufficient to get the job done right.

The GAO report was misused

Mr. Tyler relies extensively on a November 14, 1980 report from the General Accounting Office to the House Public Works Subcommittee on Investigations and Oversight. In that document, GAO looks into the incidence of treatment plant permit violations, concluding that there is a potential for wasting millions of dollars if plants aren't designed, built, and operated properly.

Mr. Tyler used the information and conclusions of the GAO study too freely. None of the findings of that work supports his contention that the whole program is a failure. GAO investigators were more circumspect with their conclusions than was Mr. Tyler. Here are some of the reasons why:

- *Generalizations aren't supportable.* GAO based its report on a "random sample" of 242 treatment facilities in three parts of the country. That sample is less than 2 percent of the 15,256 now operating. There is no way to make generalizations about the national picture with such a sample because it doesn't reflect the significant characteristics of U.S. treatment facilities. Wisely, GAO did not make such statements. It limited its comments to the situations studied and warned about where a trend of such examples might lead . . . but it did not say such a trend exists. Mr. Tyler leaves his readers with the impression that such a trend in fact exists. In doing so, he overreached the findings of the study.
- *"New Law" plants can't be identified.* The 1972 act changed the definition of "secondary treatment," the benchmark by which plant performance is now judged. Facilities designed to meet the requirements of programs before 1972 do not meet the standards of the current program, even though they were designed and built properly. GAO researchers made no distinctions between the two types of treatment plants in their random sample. Many of the plants Mr. Tyler holds up as horror stories were not designed under the 1972 law. They cannot be cited as failures under it. GAO knew the difference between the two types. Mr. Tyler should have too.
- *"Compliance" is in the eye of the beholder.* GAO defined the term "serious noncompliance" as the failure of a facility to meet its permit requirements for 4 months in a row. Where did GAO get its definition of this critical term? First its investigators asked EPA officials for their definition. When they didn't get a clear answer from the agency, they made up their own definition. There is no connection between noncompliance as GAO defines it and water quality degradation. In other words, GAO cannot say what the effect of "noncompliance" really is. GAO says this very honestly in its report: "The degree of permit violations can be answered; however, the impact on water quality is, at this time, unanswerable." Yet Mr. Tyler overlooks this gap in our knowledge to paint a very black picture of our progress so far. He condemns the program on the basis of an arbitrary definition applied to a non-representative sample with no direct relation to water quality.

Costs of the construction grants program

Mr. Tyler spent considerable time on the discussion of the large costs involved in the construction grants program. No one doubts that the program is expensive, but it is important to bring these costs into perspective with certain realities that Mr. Tyler overlooked.

It is not true that there was "little discussion of the true costs of environmental cleanup." In 1972 Congress spent considerable time discussing the financial needs for the construction grants program. However, the extent of the program could not be accurately estimated, especially given the relatively short time frame for it and contributing factors such as double digit inflation.

Mr. Tyler alleges that "abuses" within the construction grants program led to its high costs. In response, I would offer the following:

- *Wall Street didn't create a new economic sector.* The idea of the "eco-business" profiting from the construction grants program is nonsense. Water pollution exists on a national scale; Congress took action and appropriated funds to correct the problem. The corrective measures have been supplied by the private sector—the consultants, equipment manufacturers, and the construction contractors. That was Congress's intent. The private sector did not create an "eco-market." The need created the market and it can hardly be considered unethical for the private sector to have responded to that need. Wall Street will always react to federal spending programs, be they defense, energy, or environment. Why does this come as a surprise or indication of fraud?

- *Profiteering isn't a major abuse.* It should also be made known that the wastewater control industry is hardly a bull market for companies providing equipment or services for municipal treatment. In fact, recent reports indicate that these companies have either eliminated or severely cut back their investments in the municipal treatment business because of the excessive EPA requirements.

- *High technology doesn't drive the program.* There has *not* been any "blind faith" reliance on high technology solutions to water pollution control. Of the 20 000 construction grants projects underway, only 8 percent have been for advanced waste treatment. The other 92 percent have been for treatment processes that have proven practical for over 50 years. Furthermore, it is difficult to receive approval to build an advanced treatment project. Since 1978, Congress has directed EPA to conduct extensive reviews of any project considered to be for advanced treatment, before that project is approved.

- *Fraud isn't a major problem.* Fraud does *not* "abound" in the construction grants program. The construction grants program is one of the most closely scrutinized public programs in history, subject to frequent reviews by scores of Congressional, federal, and state investigators. Fraud may exist and GAO may have uncovered some cases in its 1980 report. Congress took that report seriously enough to sequester the names of the 242 plants, pending a review for legal action against some of the worst cases. Since the list is confidential and since neither EPA nor Justice Department attorneys will comment on potential suits, what is the basis for Mr. Tyler's conclusions?

The jury is still out of the grants program

Mr. Tyler's fundamental inaccuracy throughout the series was his assessment of where we really stand with the construction grants program. Phrases such as "Ten years and $30 billion later . . . ," "About $30 billion has been spent . . . ," "Nine years later, after a $30 billion public investment . . . ," and ". . . after spending $30 billion . . ." give the impression that we have already spent that much money. That is patently untrue.

At the end of 1980, Congress had appropriated $34.8 billion for the program. The states and EPA Regions had obligated $29 billion of that total. The U.S. Treasury had written $18.4 billion in actual payments. And only $4.4 billion has been spent on the facilities built and designed so far. Thus we are only half way through the money available and only 10 percent done with the plants that we need.

There are very good reasons why we are 9 years down the road with only 50 percent of the money committed and only 10 percent of the facilities built. Oddly enough, these reasons have a lot to do with making sure that the 1972 program does not produce the horror stories Mr. Tyler dwelt on.

Federal grant money never comes without strings and there are a lot of strings on the clean water program. That is why it takes 7 to 11 years to go completely through the process. There are still some 11,000 active grants going on, and their ultimate benefits will not be realized for many years.

In his rush to judgment Mr. Tyler failed to notice that the jury is still out on the achievements of the program. He confused plants built under previous programs with those done under the 1972 program. He used examples of bad work from the former to indict work from the latter. He exhibited deep misunderstandings of the water pollution control profession and the government's interest when he alleged unfair profit-taking, self-aggrandizing career paths, and moves by the engineering community to "capture" the national program. He has almost no understanding of the government appropriation and outlay process, and he cross-checked practically none of his findings with professional organizations in the field.

In summary, I would hardly call the Post's "Dirty Water" series responsible journalism. Mr. Tyler did your readership no service by incorrectly describing where we are, how we got there, and how far we still have to go in our national clean water program.

Financing water treatment in other countries

Most of us are familiar with the U.S. Environmental Protection Agency's construction grants program—subsidies in the form of grants providing municipal and regional districts with a portion of the funds necessary to construct treatment plants and related facilities. In other countries, water pollution control is financed somewhat differently. Perhaps we can gain some perspective from a 1976 United Nations report, "Principles and Methods for the Provision of Economic Incentives in Water Supply and Waste Water Disposal Systems."

Austria

Unlike some countries, where priority is given to fees, taxes, penalties, and similar incentives, Austria emphasizes the stimulation of water management investments. Direct incentives on a federal level stimulate the construction and operation of facilities for wastewater treatment and disposal, based on the Hydraulic Constructions Promotion Act, which sets legal priorities where the financial means are used best in accordance with governmental water management policy. Loans are granted from a Federal Water Resources Management Fund administered by the Federal Ministry for Construction and Technology to communities, to water management agencies, associations and cooperatives, and to water supply and sewerage undertakings of public benefit established by federal or provincial law. Loans are also available when the state, a province, or a community holds more than 50% of the shares, that is, to interested parties submitting projects with appropriate public interest involved. The grant covers the construction or extension of water treatment plants and wastewater and water-supply systems, as well as pre-project investigations and design of the above-mentioned measures. Similarly, loans are granted to industrial plants for the same purposes and for introducing improved technologies, such as the reuse of water in a plant and changes in technological processes.

Loans for public wastewater collection and treatment plants are granted up to a maximum of 60% of the investment costs. If facilities of special significance at high cost are in question (multistage treatment plants, very long sewers), the loan may even reach 70% of the total costs. The rate of interest is 1 to 3% with the time for repayment generally not more than 25 years (it may be up to 50 years for regional facilities for the water quality protection of lakes.) The conditions of loans depend on the importance of the facility involved, the effect provided, and the financial capacity of the persons served to bear the investment costs incurred.

There are, in addition, incentives on the federal and regional level. Indirect incentives on the federal level include exemption of fees for all official acts and documents connected with the preparation of the construction of these facilities. For the purposes of revenue taxes, a depreciation of 60% of the costs is permitted in the budget year in which the work was commenced or its construction completed. The rest may be depreciated during the following 4 years.

Incentives on a regional level include a low rate of interest (with up to 35% of the total costs financed at low interest) on subsidies or loans for the construction of collection systems at up to 35% of the total costs.

Belgium

Water management service organizations obtain construction subsidies from the state, ranging from 60 to 63% of the project cost, and sometimes from regional administrations of up to 20%. Subsidies are granted by the state and provinces for collection and drainage systems of 60%, and for public wastewater plants of 100%.

Byelorussian Soviet Socialist Republic

To improve the technical level of water management works (reconstruction, extension of capacity) water users may get long-term loans from the State Bank (for 5 to 6 years). Enterprises that have not put the respective plants into operation on time have to pay higher interest rates for these loans. If the reconstruction time is reduced by 6 or more months, the interest rate is reduced by half for the whole period of the loan, and if the reconstruction time is shortened by less than 6 months, the interest rate is reduced by 25%. The state bank also grants loans to enterprises for the creation of mobile funds. If the water utilization standards are adhered to, bonuses are paid to the employees in question.

There is also a system of lower taxation for the repayment of basic investment funds for water supply works, collection systems, wastewater treatment plants, and other structures, where the state pays part of the basic investment funds.

Canada

Federal and provincial financial assistance and loans are provided for municipal wastewater disposal and water-supply systems. Many large-scale water projects, for example, those designed for irrigation, drainage, and flood control, are undertaken by provincial agencies. Federal assistance is made available through a number of programs, and large projects are often undertaken under special federal-provincial agreements following joint basin planning studies.

Czechoslovakia

All water management investment constructions are covered from state funds. Their approval falls under the jurisdiction of state authorities at various levels and is governed by the amount to be invested and its significance within the scope of the development plan of the national economy.

The State Water Management Fund was created from funds acquired from charges for discharging polluted or insufficiently treated effluents and from this fund subsidies are granted for the construction of wastewater treatment plants, for changing technological processes leading to pollution reduction, and also for other kinds of water management works and facilities, especially of local significance.

Finland

Subsidies and loans for building wastewater treatment plants and main sewers are provided, up to 60% of the total costs, with direct subsidies of up to 30% of the costs. Water protection loans are granted to industry to cover up to 38.5% of costs. These loans have a 6 to 7.5% interest rate and a 10- to 15-year amortization period.

France

The river basin financial agencies grant loans and subsidies for financing generally useful facilities, such as wastewater treatment plants, dams, and processes leading to reduced pollution (not collection systems). Help in the form of subsidies of 15 to 40% is granted to regional and city administrations for water treatment plants; on the average, 25% of the cost is provided. These subsidies supplement state subsidies that sometimes amount to 50% of the cost. The percentage differs in various regions.

Financial help is being granted to industrial corporations by the authorities of all river basins for the construction of water treatment plants and also by some authorities for technological changes in production. The subsidies fluctuate between 30 to 50%, depending on the watershed, region, and conditions in question.

Hungary

Indemnities for discharging effluents are paid into a fund from which subsidies and loans are granted to organizations for the construction of wastewater treatment plants. In cases of multipurpose plants, governmental aids and loans also include allowances for interest on loans.

Netherlands

The construction of water purification plants is paid for from funds acquired from charges for discharging polluted or insufficiently treated effluents. When the plants are to be constructed along the state watercourses, the government grants subsidies derived from effluent charges of up to 60% of the investment costs for the construction of the plants. The government may, however, support enterprises that have difficulties with the payment of water treatment charges.

Poland

A system of payment for wastewater discharges is to be a source of a State Water Management Fund destined for the construction of group water treatment plants, for scientific research in water treatment methods, for the production of standardized facilities, and for studies.

Romania

The state investment policy works as an incentive for water pollution control projects. When approving investment projects for various branches, account is taken as to how the requirements for the effective use of water resources, including their protection, are being carried out.

Spain

Water management work is financed from the state budget. Wastewater treatment projects are funded by state contributions (20% subsidies and 15% loans) and contributions of the city administration (35% loan and 30% city budget).

Sweden

According to the official Swedish line of thought, the costs arising from the application of environmental legislation and regulations should be regarded "as part of the production costs of industry or as part of the costs incurred in developing a society" (the "polluter pays" principle).

Subsidies for anti-pollution activities were available to industry. During the period 1969-1975 it was possible for industries to receive state subsidies for measures that protect the environment. These grants were mainly intended to improve old industries and covered 25% of the building costs. During the fiscal years 1971–1974 subsidies normally covered up to 50% of the costs of equipment and processes to protect the environment. Almost two-thirds were used for reducing water pollution.

Subsidies for water and wastewater treatment works have been available for a long time. The original purpose of these subsidies was to provide opportunities for work. Since initiated, this system of subsidies has been elaborated with the aim of levelling out the costs for water consumers in municipalities with different bases of taxation. In 1959, more favorable subsidy regulations were introduced for particularly costly treatment plants.

The current rules on government subsidies for wastewater treatment plants were put into effect in 1968. These subsidies were given for new constructions and the enlargement or conversion of wastewater treatment plants, including collection systems. The amount of the subsidy is determined according to the degree of treatment and is equivalent to at least 30% and not more than 50% of the cost on which the subsidy is based. To stimulate employment, the grants were raised to 75% of the costs during part of the period 1971–1974.

Ukrainian Soviet Socialist Republic

The construction of multi-purpose plants is being planned. Their construction is undertaken and financed by all water users concerned according to their share of its use. The water users may obtain long-term bank loans and, if construction is not completed in due time, the interest may be raised.

Union of Soviet Socialist Republics

Water users may get long-term bank loans for 5 to 6 years for improvement of water management facilities (reconstruction, extension of existing plants and facilities, from a technical viewpoint). Enterprises that do not put their facilities in operation on time pay higher interest. If the construction is completed 6 or more months ahead of schedule, interest is reduced 50%, up to 6 months by 25%. Short-term credits of the state bank play an important role for the stimulation of rational water use. The system of remuneration of people working in water management works also contributes to more rational water use.

Yugoslavia

Financing water management consists of funds based on the participation of water users; funds obtained by means of charges for water used; charges for the discharge of effluents; charges for taking delivery of gravel, sand and stones from watercourses and banks; funds from sociopolitical associations, work organizations, and others; funds from water management work organizations; and loan allocations.

The accumulation of funds by this system provides a financial basis for economic aid to water management as a whole and especially for water supplies and water protection.

E. D. DeMichele

Eugene DeMichele is the WPCF manager of technical services.

This is a reprint from the *Journal Water Pollution Control Federation*, the monthly technical journal published by the Water Pollution Control Federation.

The Water Pollution Control Federation (WPCF), a non-profit educational membership organization, was founded in 1928. Pledged to provide leadership and guidance in the control of water pollution, the Federation acts as a source of education and information to the public as well as to individuals in the field of water pollution control. As such, it does not lobby or accept federal funding.

WPCF is composed of 40 member associations in the U.S. and is affiliated with 25 other organizations around the world. More than 30,000 people belong to the Federation. Our members include engineers, biologists, chemists, academia, federal, state, and local government officials, wastewater treatment plant operators, consultants, equipment manufacturers, contractors, industrial representatives, students, and others interested in clean water.

The U.S. and foreign associations are autonomous groups represented on the WPCF Board of Control, the policy-making body of the Federation. This bonding of individually strong groups under one banner is why the Federation has long been the leading technical organization in the water pollution control field.

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June 10, 1985

The Honorable Thomas D. DeLay
1234 Longworth House Office Building
Washington, D.C.

Dear Mr. DeLay:

Thank you very much for your interest in my testimony of April 30. Upon receiving your questions, I shared them with Federation members who have direct experience in the areas about which you enquire. Our answers are given below. The gentleman who responded, Mr. Walter Garrison, is now a consultant in the treatment field. He is formerly the head of the Los Angeles County Santitation District, one of the three largest metropolitan treatment agencies in the United States.

QUESTION: Don't rigid anti-backsliding provisions put a company at potential disadvantage if it accepts a BPJ permit which turns out to be more stringent than subsequent effluent guidelines to which other companies would be subject?

ANSWER: Yes. If the law required a permit holder to discharge no more of a substance than the amount set in a BPJ permit--even if a subsequent guideline for that substance permited a higher discharge--the law would be penalizing that permit holder, relative to any,competitor who waited for the formal guidelines to be published.

WPCF supports the setting of technology-based standards for BCT and BAT levels of treatment. The use of best professional judgment or "BPJ" as a basis for setting interim standards has been a way to bring dischargers into the NPDES system while all of the research necessary to set technology-based standards was being conducted. If the research supporting BCT or BAT effluent limits for a particular substance reveals that a permit holder can discharge more of than substance than he could under his BPJ permit, then we believe that the discharger should be allowed to do so.

Thus, the Federation agrees with you that such situations cannot be called "backsliding". Indeed, we found that the term "backsliding" was used rather loosely during the April hearings of the Water Resources Subcommittee. Some of the witnesses from the environmental activist organizations apparently use the term to describe **any** permit renewal that results in higher levels of discharge for **any** substance covered under **any** circumstances. This is inaccurate and wrong. Mr. Garrison concurs with this view.

QUESTION. Isn't it the intention of the Clean Water Act that national point source category effluent guidelines be the basis for NPDES permit limitations?

ANSWER. Yes, the Act clearly states that technology-based limits shall be the basis for BCT and BAT standards. There are still some dischargers that must reach BCT. There are many that must reach BAT. Hundreds are waiting for the BAT limits that remain to be published. That is why we still have BPJ permits. But the day is not far off when most dischargers will provide BAT treatment. At that point, the basis for setting additional limits switches from technology to water quality. In other words, once dischargers are meeting their technology-based limits, increases in their requirements should be based on the water quality that must be achieved to fulfill the designated use of the stream in question. So there will be situations in which the technology-based limits will be augmented by water quality-based ones. But the minimum standards that everyone must meet will always be technology-based.

QUESTION. Wouldn't it be advisable to give EPA more discretion in reopening permits for periods of up to 10 years. If this is politically unrealistic, then I think a "split permit" that allows 10-year periods for conventional pollutants and 5-year periods for toxic or hazardous substances is still preferable to 5-year periods for all substances.

ANSWER. Most WPCF members would agree with you. Mr. Garrison certainly does. The Federation has supported amending the law to allow 10-year permits. Like you, WPCF does not mean that 10-year permits should be **required**, only that permit issuing authorities have the option to use them where appropriate. "Split permits" would be an acceptable compromise because they strike a balance between the issuing authority's need to renew permits on a realistic timetable, and the activist organizations' need to be sure that action is being taken on toxic and hazardous pollutant control as fast as possible.

Mr. DeLay, thank you very much for the opportunity to respond to your questions. If you would like additional information, please let me know. Mr. Walt Garrison can be reached at James Montgomery Engineers in Pasedena, California. His telephone number is (818) 796-9141.

Sincerely yours,

Robert Perry

Robert R. Perry
Assistant Executive Director

RAC: aes
cc: Walter Garrison
John Doyle
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Congress of the United States
House of Representatives
Washington, D.C. 20515

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May 9, 1985

Mr. F. Thomas Westcott
c/o Associated General Contractors
  of America
1957 E Street, N.W.
Washington, D. C.

Dear Mr. Westcott:

You testified last week before the Water Resources Subcommittee concerning reauthorization of the Federal Water Pollution Control Act.

A number of questions were not able to be asked during the course of this hearing. Would you please respond to the attached questions and provide a copy of your answers to Mr. Joseph A. Italiano, Public Works Committee Editor, for inclusion in the Water Resources Subcommittee's hearing record.

Additional questions, should there be any, will be forwarded as quickly as possible.

Thank you for your prompt attention to this request and for your excellent Subcommittee testimony.

Sincerely,

Arlan Stangeland
Member of Congress

AS/jdk

Attachment

QUESTIONS FOR
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

1. SOME HAVE CRITICIZED THE FEDERAL APPROACH TO ENVIRONMENTAL CLEANUP AS A SYSTEM THAT PROMOTES GOLD-PLATING IN DESIGN AND CONSTRUCTION PROGRAMS. THE ARGUMENT GOES THAT IF UNCLE SAM IS PAYING FOR YOUR PROJECT, YOU WANT THE BEST PROJECT MONEY CAN BUY. THE CRITICS ARGUE THAT ONE WAY TO AVOID GOLDPLATING AND OVER DESIGN IS TO REQUIRE THAT AFFECTED COMMUNITIES, AND ULTIMATELY THE PURCHASERS OF THE SERVICES, BE REQUIRED TO PAY A HIGHER PORTION OF THE COST. IN THIS WAY LOCAL COMMUNITIES WOULD HAVE TO BETTER ASSESS THE RELATIVE COSTS AND BENEFITS OF WATER POLLUTION PROBLEMS. TO WHAT EXTENT WOULD YOU SAY THAT THERE HAS BEEN GOLD-PLATING AND OVER DESIGN AND TO WHAT EXTENT HAS THE LOWERING OF THE FEDERAL SHARE OF THE CONSTRUCTION GRANTS PROGRAM RESULTED IN A REDUCTION IN GOLD-PLATING?

2. WHAT ADDITIONAL INCENTIVES SHOULD BE ADDED TO THE CLEAN WATER ACT TO REWARD NEW, INNOVATIVE TECHNOLOGY?

3. ARE THE INCENTIVES FOR NEW AND INNOVATIVE TECHNOLOGY RESULTING IN GOLD-PLATING?

4. TO WHAT EXTENT DO WE NEED TO PROVIDE INCENTIVES FOR SIMPLER MORE COMMON SENSE APPROACHES TO PROBLEMS SUCH AS INFILTRATION AND INFLOW?

5. MR. WESTCOTT, ON PAGE 5 OF YOUR TESTIMONY YOU INDICATED THAT THE "TURNKEY" APPROACH HAS WORKED WELL IN THE PRIVATE SECTOR BUT WOULD "UNDERMINE THE INTEGRITY OF THE COMPETITIVE BID SYSTEM". COULD YOU PLEASE EXPLAIN WHY SOMETHING THAT HAS WORKED WELL IN THE PRIVATE SECTOR CAN'T WORK IN GOVERNMENT?

Questions on behalf of Congressman Thomas DeLay

1. I understand EPA develops effluent limitation guidelines for a specific industry category based upon detailed evaluation by EPA of technical and economic data as well as comments by interested parties. Yet, it is proposed that if a company accepts a Best Professional Judgment (BPJ) permit before guidelines for that industrial category are finalized, that company cannot later have its permit reopened to incorporate subsequent guideline limits if they are less stringent than the BPJ permit. Don't rigid anti-backsliding provisions put a company at potential competitive disadvantage if it accepts a BPJ permit which turns out to be more stringent than subsequent effluent guidelines which other companies would be subject to? Isn't it the intention of the Clean Water Act that national point source category effluent guidelines be the basis for NPDES permit limitations?

2. The permit issuance process, including establishing effluent guidelines has rarely, if ever, resulted in issuance of permtis in a timely manner. First round permits were issued 3 to 5 years late; the same seems to be occurring with the current permits. Moreover, the permit application and review process typically takes 2 to 3 years. Hence, a 10-year permit term seems to be logical in light of past experiences. However, it seems to me that much of the benefit that will be gained by going to a 10-year permit is lost by the mandatory reopeners in this section. Wouldn't it be advisable to give EPA more discretion in reopening permits based on water quality effects except for inclusion of standards for toxic pollutants? How do you feel about this from the State and local level?

WESTCOTT

May 20, 1985

The Honorable Arlan Stangeland
Congress of the United States
House of Representatives
1526 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Stangeland:

In response to your letter dated May 9, 1985 with reference to the Water Resources Subcommittee Hearing, I am pleased to answer the additional questions as follows:

1. Westcott Construction Corporation has been in the construction business for almost 60 years, and its primary business during this period has been the building of waste treatment plants. Comparing those plants that were designed and built prior to the passage of P.L. 92500 with those that were built since the passage of P.L. 92500 with 75% Federal participation, I have not noticed any particular "gold plating".

   I do feel that there have been instances where the plants have been over-designed with respect to reserve capacity, but based on historical growth of the communities, this money, in the final analysis, is cost effectively used.

   I believe, to a great degree, the gold plating as such may have been forced on many of the communities by Congress and EPA to build treatment plants in a complete,single package rather than several logical phases.

   Due to the fact that most of the projects on which we are currently bidding are still under the 75% Federal share due to prior grants, we have not seen any projects which have been designed under the new allocation formula. Therefore, I am not in a position to comment as to the quality of the design.

   In summary, I do not feel that gold plating has been a significant problem in the New England area where we operate.

2. With respect to innovative technology, it is my opinion that many Consulting Engineers are reluctant to try the new technology due to the following reasons:

   a. Lack of experience with and knowledge of the new technology.

   b. Insufficient fees to cover the cost of the design of innovative technology.

   c. Insufficient financial protection from the Federal government to protect both the grantee and the Engineer in the event the plant with the innovative technology does not work as intended; will not meet its permit requirements and may possibly need extensive revisions before its permit requirements can be met.

   d. Non-willingness of Engineers to depart from conventional, tried and proven,technology.

Westcott Construction Corporation / 135 East Washington St. / North Attleboro, MA 02761 / Tel. (617) 695-3561 / Telex 927642

3. Some of the projects which we have seen for bid are extremely questionable in my mind as to whether they really qualify for innovative technology as the use of the technology in several instances has been proven either in other areas of the United States or in other parts of the world and is, therefore, not truly innovative.

   I do not feel there is sufficient reward to manufacturers of equipment used in waste treatment plants to justify a major research and development program. At the present time, most of the major technology for treating waste has been in use for years, a great deal of it derived from experience gained in the settling of solids in the mining industry and in the processing of the solids in the paper making industry.

   Most of the improvements that can be made on the current methods used would only be fine-tuning of the existing systems, and it would be highly questionable as to whether there would be any major technological breakthrough in the treating of sewage, except as an outgrowth of some other industrial application.

   Because of the high costs of research and development, with little return on the investment, it is doubtful in my mind that wastewater equipment manufacturers will commit themselves to a major research and development program unless this cost is underwritten by the Federal government or one of the major foundations that provides grant money for research and development work.

   There is an area, however, in which I feel considerable development could be undertaken,and that is in the adequate disposal of the sludge generated from treatment plants. Although there are several methods in use today, it would seem that an appropriate research and development program may provide an energy efficient means of disposing of sludges, especially those sludges that contain hazardous waste. I would recommend that EPA take full advantage of its research facility at its laboratory in Cincinnati and that it continue its work with the University of Cincinnati to develop more cost effective techniques for treating sewage.

4. Living in the New England area, I am aware that a great deal of the sewer collection system is antiquated and needs replacement. The systems were constructed with materials that will continue to fail as they age, and these should be replaced with more modern types of materials that will minimize or eliminate infiltration and inflow.

   To a great extent, this is one of the major problems of the replacing of the urban infrastructure in a great many of the nation's cities. Because of the huge costs of replacing this portion of the infrastructure, most cities can only afford to do a patch-up job on their existing collection system, rather than completely replace the system with modern materials. This approach is not cost effective in that the cities are continuously attempting to refurbish an antiquated system. In the meantime, their treatment plants are handling an enormous excess of ground water which would not be necessary if inflow and infiltration could be minimized.

   Municipalities with this type of problem should be encouraged to modernize their collection systems rather than patch-up and make do, for a few additional years, their existing, outdated systems.

5. Mr. Westcott, on page 5 of your testimony you indicated that the "turnkey" approach has worked well in the private sector but would "undermine the integrity of the competitive bid system". Could you please explain why something that has worked well in the private sector can't work in government?

In the private sector, a prospective owner negotiates with prospective teams who will design and build his project. His choice of a team will be based on his own subjective and objective judgement. The private owner does not have to justify to the public his use of private funds.

As stated in my testimony, the design-build introduces a subjective element into the award process. The basis for competition is flawed. Politics can enter into the decision making process. AGC believes that the subjective judgements that could be made between different proposals, could potentially corrupt the open, competitive bid system.

ARLAN STANGELAND
7TH DISTRICT, MINNESOTA

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AGRICULTURE
PUBLIC WORKS AND
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May 9, 1985

Mr. J. William Haun
Chairman, NEDA Water Project
National Environmental Development Assn.
605 14th Street, N.W.
Washington, D. C. 20005

Dear Mr. Haun:

You testified last week before the Water Resources Subcommittee concerning reauthorization of the Federal Water Pollution Control Act.

A number of questions were not able to be asked during the course of this hearing. Would you please respond to the attached questions and provide a copy of your answers to Mr. Joseph A. Italiano, Public Works Committee Editor, for inclusion in the Water Resources Subcommittee's hearing record.

Additional questions, should there be any, will be forwarded as quickly as possible.

Thank you for your prompt attention to this request and for your excellent Subcommittee testimony.

Sincerely,

Arlan Stangeland
Member of Congress

AS/jdk

Attachment

QUESTIONS FOR
NATIONAL ENVIRONMENTAL DEVELOPMENT ASSOCIATION

1. ON PAGE 3 OF YOUR TESTIMONY, YOU ARGUE AGAINST A MANDATORY REQUIREMENT THAT EPA MODIFY PERMITS TO INCORPORATE NEW OR REVISED TOXIC POLLUTANT LIMITATIONS OR WATER QUALITY STANDARDS. YOUR ARGUMENT IS THAT, WHILE EPA SHOULD BE AUTHORIZED TO REOPEN PERMITS ISSUED ON THESE AND OTHER GROUNDS, A MANDATORY REQUIREMENT "COULD PROVIDE THE BASIS FOR A JUDICIALLY-IMPOSED INTERRUPTION OF AN AGENCY'S STATEWIDE EFFORTS TO ACHIEVE MAXIMUM ENVIRONMENTAL BENEFITS FROM LIMITED RESOURCES". DO YOU MEAN TO SAY THAT YOU CAN ENVISION SITUATIONS WHERE NEW TOXIC POLLUTANT LIMITATIONS OR WATER QUALITY STANDARDS SHOULD NOT RESULT IN A REOPENING OF A TEN-YEAR PERMIT? IF SO, CAN YOU ELABORATE AND GIVE SOME EXAMPLES?

2. ON PAGES 6 THRU 9 OF YOUR TESTIMONY, YOU ARGUE IN FAVOR OF GIVING LOCAL POTW'S THE FLEXIBILITY TO RUN THEIR OWN PRETREATMENT PROGRAMS AS LONG AS THE OVERALL LOCAL WATER QUALITY PROGRAMS ACHIEVE WATER QUALITY IMPROVEMENTS EQUAL TO THE FEDERAL STANDARDS. DO YOU HAVE ANY INFORMATION ON THE NUMBER OF LOCALITIES THAT MIGHT BE ABLE TO UNDERTAKE THE KIND OF PRETREATMENT PROGRAMS YOU ADVOCATE? WHAT SPECIFIC LOCAL POTW'S HAVE YOU IDENTIFIED THAT HAVE DEVELOPED TREATMENT AND PRETREATMENT PROGRAMS THAT MEET FEDERAL STANDARDS AND SHOULD BE ALLOWED TO RUN THEIR OWN PROGRAMS?

3. WHAT ADDITIONAL INCENTIVES SHOULD BE ADDED TO THE CLEAN WATER ACT TO REWARD NEW, INNOVATIVE TECHNOLOGY?

4. ARE THE EXISTING INCENTIVES FOR NEW AND INNOVATIVE TECHNOLOGY RESULTING IN GOLD-PLATING?

5. TO WHAT EXTENT DO WE NEED TO PROVIDE INCENTIVES FOR SIMPLER, MORE COMMON SENSE APPROACHES TO PROBLEMS SUCH AS INFILTRATION AND INFLOW?

Questions on behalf of Congressman Thomas DeLay

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2. The permit issuance process, including establishing effluent guidelines has rarely, if ever, resulted in issuance of permtis in a timely manner. First round permits were issued 3 to 5 years late; the same seems to be occurring with the current permits. Moreover, the permit application and review process typically takes 2 to 3 years. Hence, a 10-year permit term seems to be logical in light of past experiences. However, it seems to me that much of the benefit that will be gained by going to a 10-year permit is lost by the mandatory reopeners in this section. Wouldn't it be advisable to give EPA more discretion in reopening permits based on water quality effects except for inclusion of standards for toxic pollutants? How do you feel about this from the State and local level?

July 23, 1985

Congressman Arlan Stangeland
1526 Longworth House Office Bldg.
Washington, DC 20515

Dear Arlan:

In accord with your letter of May 9, I am attaching responses to the questions that were unable to be asked at the hearing on the Clean Water Act on April 30.

I must apologize for the delay in providing this information. I am told that the original letter directed to me at the NEDA office in Washington got lost, and the request reached me only this week.

I hope these are satisfactory responses.

Thank you for your continuing help and patience.

Best regards,

Bill

J. William Haun

JWH/ms

Responses to Questions Raised by Congressman Arlan Stangeland

1. The problem of concern with the mandatory requirement that permits be reopened to incorporate new or revised toxic pollutant standards or water quality standards arises out of an interaction between such a requirement and the citizens suit provision of Section 505 of the Act.

   Under Section 505, any person can sue the Administrator alleging failure to perform a non-discretionary act of enforcement of a standard or effluent guideline.

   Our concern is that the court may, as has often happened in the history of this Act and program, ignore the total workload of a state or federal agency and issue orders requiring instant application of the new guideline even when that agency has more urgent problems to correct with limited resources.

   Mandatory reopeners can effectively disrupt the program of a state or federal agency by giving overall program control of the agency's agenda to others having no responsibility.

   We believe that the regulatory agency must have authority to set priorities on the basis of real effects and to bring about compliance with new requirements in an orderly fashion so that the worst problems get the required attention.

2. Our belief that many local POTW's can effectively run their own pretreatment programs to achieve the results required under Federal standards is based both on our own experience as industrial dischargers to POTW's and on the views of the Association of Municipal Sewer Authorities (AMSA).

   Each POTW has a unique combination of collection system and treatment facility. Each has a unique influent quality derived from the mix of dischargers.

   Federal pretreatment standards, as we have seen them develop, do not recognize the specific circumstances of each POTW, but are entirely based on the characteristics of the individual discharge. There are numerous cases in which one discharge aids in the treatment of others. A sample case would involve one acid discharge and another basic one. Since there would be some neutralization in the sewer system, substantially less total chemicals would be required than would be the case if each were required to neutralize before discharging.

   AMSA has listed some 50 POTW's that are believed fully capable of operating their own pretreatment systems. We believe others can achieve this also.

   Among POTW's that we believe fully capable are Chicago, Minneapolis-St. Paul, Los Angeles, St. Louis, and many others. Most major systems are today run by highly professional management which has a major interest in protecting the operability and maintainability of their entire system. No Federal program can relieve them of this responsibility, thus they are faced with trying to deal with two requirements, not one, and will waste much time and money for little purpose.

3. Incentives seem unlikely to improve the rewards for new and innovative technology, at least incentives of any conventional kind.

   Reluctance to attempt new approaches results from many influences, among them:

   A. Financial and professional risk to the design engineers. Liability of engineers is an increasingly difficult problem to manage, with insurance now running up to 3% of the capital cost of facilities designed. This approximates half the actual cost of doing the design and usually is too high for owners to pay--if they can find a cheaper engineer.

   B. EPA procurement regulations and the accompanying technical reviews greatly inhibit innovation. This is generally true in all public works, but is probably an ever larger factor in complicated projects like sewage treatment.

   C. Public owners are even more risk-aversive than private ones. Everyone involved is more comfortable with brute-force methods just like other cities!

   Perhaps limitation of liability to the old standard of "due diligence" in "accord with good engineering practice" and ways to avert strict liability for failure of a new system to perform without additional modificattions would help. This problem is larger than the Clean Water Act and might well be a subject which the Public Works Committee should investigate generally.

4. In accord with comments under Question 3, if one undertakes a new and innovative design, there is no alternative but to ensure plenty of safety margin--usually called gold-plating.

5. Simpler and common-sense approaches to infiltration are elusive. Perhaps Federal encouragement or requirement (with subsidy) for infiltration surveys and minimum repair standards would be enough.

   The problem of controlling inflow to sanitary sewers is in many ways technically simple--but politically dynamite.

   Inflow results from uncontrolled discharges of stormwater from roof drains, area drains like loading docks and garages, from basement sump pumps controlling groundwater, and from leaking manhole covers in streets flooded by heavy rains with inadequate storm drainage. All of these can be corrected, but at large cost to individuals--taxpayers and voters.

   A program to correct combined sewers could incorporate many of these items; that is perhaps the best hope of some relief.

July 23, 1985

[The prepared statements of Mr. Perry, Ms. Simmons, Mr. Spear, Mr. Ledbetter, Mr. Haun, and Mr. Sheets follow:]

Water Pollution Control Federation
2626 Pennsylvania Avenue Northwest, Washington, D.C. 20037 ☐ 202/337-2500

TESTIMONY BEFORE THE

HOUSE PUBLIC WORKS AND TRANSPORTATION

WATER RESOURCES SUBCOMMITTEE

REGARDING

MUNICIPAL WASTEWATER TREATMENT FINANCING

BY

ROBERT R. PERRY

ASSISTANT EXECUTIVE DIRECTOR,

THE WATER POLLUTION CONTROL FEDERATION

APRIL 25, 1985

Good morning Mr. Chairman and members of the water resources subcommittee. I am Robert R. Perry, assistant executive director of the Water Pollution Control Federation. On behalf of our president, Harry Tow, I thank you for the opportunity to present our comments on the need for continued federal assistance to municipal wastewater treatment facilities.

WPCF Supports Continued Federal Assistance For POTWs

The Federation believes that federal assistance for municipal wastewater treatment should continue until 1995. In testimony before this committee two years ago I expressed WPCF's belief that such assistance should contribute to making treatment systems financially self-supporting. Economic and political events since then support this belief.

Congress last amended the Clean Water Act in 1981. As a result, the construction grants program was streamlined and states were permitted to stretch federal dollars further. Today, this panel has several proposals for making that money work even harder. WPCF recommends that these proposals be judged against three criteria. These are:

1. "Core" treatment needs should be met before other needs.
2. Federal assistance should help as many qualified communities as possible.
3. Assistance should help municipal treatment systems become financially independent.

WPCF commends this committee and the sponsors of H.R. 8 for taking steps to transform the program so that it meets these criteria more closely.

The 1984 Needs Survey Shows Federal Assistance Must Be Continued

EPA's latest Needs Survey was released earlier this year. It shows that treatment needs remain high enough to justify continued federal contributions to municipal clean water. Today, $40.6 billion in core needs remain to be met.

Core treatment needs must be met. They are not an option if we want to preserve the progress that we have made since 1972. The '84 Needs Survey reminds us that it is still possible for the increasing pollutant loads of the 80s and 90s to negate the reductions of the 70s.

1. Pollutant loads to our waters will increase because our population is increasing. If we fulfill our national goal of providing secondary treatment for every community in this country, we will be able to limit that increase to 9% of the 1984 loads. This is important: we are completing the program to control an increase, not to "pamper" ourselves with unnecessary treatment.

2. The impact of these loads will be significant. By the year 2000, the ratio of dischargers on small streams to dischargers on large streams will double.

3. The need for treatment will be critical. The number of small streams receiving at least half of their flow from a treatment facility at the point of discharge will increase 146% by the year 2000.

4. These factors will combine to make treatment costs for many communities higher than the '84 Survey estimates because discharge requirements will become more stringent by the time actual construction can begin.

The federal contribution to this program was substantially reduced in 1981. We met nearly three times as many core needs between 1980 and 1982 as we did between 1982 and 1984. Between 1980 and 1982, we reduced outstanding needs by $9.9 billion. In the last two-year period we reduced outstanding needs by $3.4 billion.

If federal assistance falls below $2.4 billion annually, I am afraid that increasing costs will outstrip the needs met each year. In such a situation, Congress would be forced to continue assistance endlessly, or to stop the program before all legitimate needs were met.

WPCF believes that there are ways to meet this nation's core treatment needs within a reasonable time period, at reasonable cost. But doing so will require that the federal commitment continue.

EPA's Amendments Will Not Do The Job

Given the core needs reported in the '84 Survey, WPCF concludes that EPA's 1985 amendments do not satisfy the three criteria I have presented, nor do they promote the goals of the Act. If the agency's proposals were enacted, we would reach the 21st Century with nearly $32 billion in unmet needs. Needs of this magnitude equal over half of the treatment capacity created since 1972. Thus EPA's plan for ending the construction grants program fails to satisfy our basic needs.

Furthermore, these proposals will do little to encourage self-sufficiency among communities. Only core needs already holding a grant award would continue to get funds. As many as 5,000 communities would probably receive no aid at all. Seventeen percent of the national population would not receive secondary treatment. And perhaps as many as 200 communities would continue to discharge raw wastewater to their receiving waters.

EPA's proposal has been tagged a "no new starts" plan. The nickname is accurate, for the plan allows no time for a thoughtful transition to a future without construction grants. Under EPA's scenario, states would have to concentrate on moving grandfathered projects through the process, to avoid losing money in reallotment. Ineligible communities would wait to see if treatment requirements were really enforced, once the grants program ended. Political realities being what they are, state and local governments would gamble on the unmet needs generating enough political support for reviving the program after 1989.

In reality, EPA's proposals place too much emphasis on short-run outlay control. These proposals are an attempt to satisfy the political liabilities created by projects now in the grants program. But they leave the bulk of needed construction as a liability for future congresses and administrations. Inflation increased the cost of core needs 9.2% in the last two years, according to the '84 Survey.

H.R. 8 Promotes Ways To Increase The Buying Power Of Federal Dollars

The grant-related provisions in H.R. 8 create an alternative to the existing program that should be tried. And most of the bill's amendments agree with the 13 principles on federal assistance that WPCF adopted in January 1985.

For example, WPCF supports a minimum annual appropriation of $2.4 billion through fiscal 1995, if necessary. We also favor creation of state revolving funds or, so that more needs can be met through other forms of assistance. In fact, WPCF urges this committee to consider several ways to encourage conversions from federal grants to such revolving funds.

1. Give states enough time to create revolvng fund programs. Most do not have the enabling legislation necessary to set up such programs this year. Few, if any, will be prepared to do so next year.

2. Make federal allotments to the states in lump sums, but permit states to deposit all or any portion of their allotments in a revolving fund.

3. Make state contributions to revolving funds optional, rather than mandatory. Mandatory contributions make it harder to "sell" the SRF concept to a state legislature.

4. Keep the federal share for construction grants at 55%, rather than increasing it to 65%.

5. Require states to dedicate all SRF monies to wastewater treatment construction until these needs are met.

6. Treat monies that have been used and then paid back to a fund as state revenues. Remove the requirement that they be treated as federal funds ad infinitum.

H.R. 8 Improves Our Ability To Provide The Treatment Needed

H.R. 8 allows for a reasonable transition from a "grants only" situation to a "grants-plus-revolving fund" situation. It is a more realistic way of dealing with our needs than is EPA's proposal. H.R. 8 could be improved by structuring SRFs so that states and communities have strong incentives to voluntarily switch from grants to revolving funds.

To conclude, the members of the Water Pollution Control Federation support the forms of federal assistance to municipal wastewater treatment contained in H.R. 8. If the recommendations presented above are included, the measure will meet the three tests of: (1) fulfilling core needs; (2) maximizing federal buying power; and (3) contributing to making municipal tretment systems financially independent. We commend this committee for acting on H.R. 8 and we offer our assistance in explaining the Federation's position in more detail.

Water Pollution Control Federation

A WPCF WORKING PAPER

"Continuing Federal Support of Publicly Owned Treatment Works"

Preface

The principles contained in this working paper are based on five assertions. First, the federal government is committed to restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. Second, national treatment requirements set by the U.S. Congress are necessary to achieve national clean water goals. Third, it is a national policy that federal financial assistance be provided to construct publicly owned treatment works (POTWs). Fourth, there is a "backlog" of needs that must be met. And fifth, Congress's deadline for meeting those needs makes it impossible for communities to do so without federal assistance.

Given these facts and assertions, the Water Pollution Control Federation (WPCF) proposes that federal financial support for municipal wastewater treatment be continued into the near future. Any changes in the existing program of municipal construction grants should be consistent with the following principles.

Principles

1. Federal support should contribute to making POTWs financially independent once treatment facilities are able to meet their permit requirements.
2. Federal support should be continued until an adequate replacement is found by the end of fiscal year 1995, if not earlier.
3. The federal government should contribute no less than $2.4 billion annually to this objective.
4. Federal support should be either allotments to the existing construction grants program, contributions to state-managed revolving funds, or to loan guarantee and loan subsidy programs, if authorized.
5. States should be encouraged to convert their existing grants programs into such state-managed funds or programs.
6. States choosing to continue with the existing grants program should have the freedom to consider projects in all needs categories as grant-eligible.
7. Federal construction grant allotments or state fund contributions must be dedicated exclusively to POTW construction.
8. The federal share of any approved project in the existing construction grants program should be 55%.

9. States are strongly urged to make their own contributions to this objective, either in funds to the existing grants program or to revolving funds.

10. The federal government should continue to exercise general oversight authority, to enforce treatment requirements where appropriate, and to monitor for compliance.

11. State governments should exercise administrative control over the program and projects within their jurisdictions.

12. The congressionally mandated deadline of 1988 should be changed to a more realistic date, given the rate of progress that can reasonably be expected from the national program at this time.

13. Privatization alternatives to the federal program should be encouraged wherever appropriate. Tax exemptions for bonds dedicated to wastewater treatment construction should be continued.

Note: This paper was first drafted on January 11, 1985. Several revisions have occurred since that date. This version (4/15/85) replaces all previous drafts.

NATIONAL UTILITY CONTRACTORS ASSOCIATION
(NUCA)

Represented by

Loretta Simmons, President
Blair Supply Corporation
(Rochester, New York)

President, National Utility Contractors Association

CLEAN WATER ACT

House Subcommittee on Water Resources
Honorable Robert Roe, Chairman

April 23, 1985

The National Utility Contractors Association
Suite 606 1235 Jefferson Davis Highway
Arlington Virginia

Loretta Simmons
President, Blair Supply Corporation

Representing the
National Utility Contractors Association

Introduction

Mr. Chairman and members of the Committee, the National Utility Contractors Association (NUCA) is comprised of 2,000 companies nationwide -- contractors, suppliers and manufacturers -- that specialize in water delivery and wastewater treatment construction projects, particularly underground pipeline work. NUCA members lay the pipe and build the treatment plants necessary to achieve the goals set forth by Congress in the Federal Water Pollution Control Act. In short, it is our job to build the projects necessary to meet the "clean water" requirements mandated by Congress.

As a result of our work in building many of the wastewater treatment facilities funded as a result of the federal statute now before this Committee, we wish to take this opportunity to offer the utility construction industry's views on the program and to offer our recommendations on possible improvements to the Act.

In recent years, NUCA and other organizations have mounted public education campaigns designed to draw attention to the nation's decaying infrastructure. Partly as a result of the publicity that has been focused on the nation's decaying infrastructure related problems in recent months, many people are beginning to realize the decaying condition of our water delivery and wastewater treatment systems, and our highways and bridges. The even more crucial problem, however, has not been adequately addressed: how does the nation pay to repair and rehabilitate this network of public services? At this time we will address the specific issues we feel are most critical in the clean water debate.

Reauthorization

As you know, legislation adopted by Congress in 1981 extends the sewage treatment construction program only through fiscal 1985. It was only through the tireless efforts of Chairmen Howard and Roe, and Members of this subcommittee that an extension was achieved. President Reagan has made it clear he intends to rapidly phaseout the program as part of the Administration's budget reduction plan.

Most importantly, we feel that continued federal funding for the EPA construction grants program is essential. The four-year phaseout proposed by the Administration in the Office of Management and Budget's (OMB's) plan is simply much to rapid. This proposed timetable fails to give state and municipal governments, which will be expected to assume complete responsibility for construction financing by 1990, adequate time to adjust to such a rapid phaseout of federal dollars.

It is impossible to predict what the future holds for: the quality of our nation's waters, financing available to construct needed facilities, and other major factors. Therefore, we respectfully urge the Congress to adopt a three- to five-year reauthorization plan that does not specify a phaseout of the program. Toward the end of the new reauthorization period, Congress will have an opportunity to again study the program and the nation's clean water needs at that time. Sufficient progress may then have been made and adequate funding may then be available under State revolving loan funds to adopt a rapid phaseout strategy. Environmental and economic conditions at the time may still necessitate an increased financial commitment by the federal government. In summary, NUCA favors a reauthorization schedule similar to that proposed in H.R. 8.

Funding Level

NUCA strongly supports an increase above the current $2.4 billion in yearly authorizations for the program. We want to say at the outset that as utility contractors we hope our industry would benefit from this increased funding through the competitive bidding system. But it is obvious from a number of studies that the current $2.4 billion annual appropriation for the program is inadequate to meet current or projected needs. We also firmly believe more of the funding burden must be assumed by state and local governments.

The problems confronting this nation's sewage treatment systems are acute, they are immediate and they are widespread across the nation. In the Boston area, much of the sewer system has been in operation for more than a century. Antiquated wooden pipes still transport part of the city's waste, and authorities estimate the region loses 30 percent of its wastewater through aged, leaking pipes. Orlando, Florida is prohibited from adding more homes to its already overloaded sewer system. One-third of all sewer lines in Albuquerque, New Mexico are so deteriorated that trucks traveling over them cause the pipelines and the highways above them to collapse. This dilemma facing our nation is the result of long-term, massive underinvestment in wastewater treatment systems, largely on the part of state and local governments.

All told, the EPA estimates it will cost some $108 billion by the year 2000 in order for the nation's wastewater treatment systems to comply with current environmental requirements -- $85 billion alone for the current population. Under current law, the projected federal share of those costs has been reduced to roughly $35 billion. While we are aware of the perhaps somewhat inflated projections contained in the EPA survey, there is little doubt the financial requirements for the remainder of this century are immense.

We also wish to bring to your attention the April, 1983 report by the Congressional Budget Office (CBO) entitled, "Public Works Infrastructure: Policy Considerations for the 1980s." The report from this highly respected body states, "Inadequate sewer pipes and sewage treatment as well as insufficient capacity to handle storm runoff characterize many of the nation's 15,000 wastewater treatment systems...but projected federal and non-federal outlays combined fall short of (projected needs) by about 24 percent."

The CBO report also indicates EPA and other federal agencies, under the appropriations ceilings now authorized, will spend an average of $3.2 billion on wastewater facilities each year between now and 1990. In order to meet all estimated needs, the CBO indicates federal spending would have to increase to an average of $4.2 billion each year through 1990 -- roughly a 25 percent increase.

Additional statistics also support the need for increased funding for the construction grants program:

- The current backlog (total existing needs) for compliance with the Act is estimated at $85 billion, according to EPA;

- Billions in wastewater treatment projects ready for construction currently await funding;

- According to Pat Choate, co-author of "America in Ruins," it will cost $25 billion over the next few years alone to meet pollution control standards;

- Nearly one-half of the nation's communities are unable to add additional homes and businesses onto their sewage treatment systems because those systems are already operating at full capacity -- thereby losing valuable tax revenues.

It is this last statistic that is particularly alarming. A sound network of basic public facilities is essential to the future economic growth of our nation. Studies indicate businesses and industries place the condition of an area's sewer and water system near the top of their list of criteria in determining whether to build, expand or relocate.

Perhaps the most convincing argument in favor of increased funding is to consider the financial risks involved in continuing with inadequate current funding levels ($2.4 billion annually). A mere reduction in funding from pre-1982 levels did not reduce the overall cost of our clean water needs. If anything, it has contributed to delays in construction which, in turn, will add to the total cost of the program.

We feel an annual authorization above $2.4 billion annually represents a more effective approach to the Construction Grants program. Low annual expenditures postpone the nation's clean water problems and thus prolong the very need for the federal program. Studies indicate that between 1976 and 1984, construction costs in this nation increased by 65 percent. Thus, the reduced annual appropriation for the program can be compared to running in place -- we are barely keeping up with funding needs without making a real dent in the problem.

Again, we stress that State and local governments must also increase their financial commitment for water pollution control construction projects. This should be accomplished through a tough EPA enforcement policy requiring municipalities to develop a firm construction schedule to meet the water quality standards required by the federal Clean Water Act.

Budgetary Considerations

Our recommendation to increase yearly funding, as we stated earlier in this presentation, is due largely to our firm belief in the critical link between adequate wastewater treatment facilities and future economic growth. It is also a result of the apparently imminent reductions in federal funding for other programs used by state and local governments to finance sewage treatment construction projects.

The Administration is proposing to reduce or terminate federal funding for the revenue sharing program, HUD Community Development Block Grants, Economic Development Administration, Farmers Home Administration Water and Waste Disposal program and others. Each of these programs is used by state and municipal governments to finance wastewater treatment projects and any reduction in their funding will only further curtail progress in water pollution cleanup efforts. Regardless, it appears likely at least some cutbacks in these related programs are inevitable.

Obviously, we are open to criticism for advocating an increase in spending for any federal program. As responsible members of the business community, we remain staunchly supportive of a balanced federal budget. However, a survey just completed by our association reveals that the Reagan Administration's fiscal 1986 budget request for the major federal programs that finance the construction of sewage treatment systems represents a staggering 50% reduction from Congressional appropriations for these programs in fiscal 1980. Specifically, the reduction is from $4.97 billion in 1980 to the proposed 1986 total of $2.47 billion included in the President's budget request for these programs. A breakdown of these figures follows:

FEDERAL WATER/WASTEWATER CONSTRUCTION SPENDING

Program	Fiscal 1980 Appropriation	Fiscal 1986 Request	Decrease
Farmers Home Administration (FmHA) Water/Waste Disposal Program (total grants & loans)	$990 million	$75 million	$915 million (92%)
Economic Development Administration (EDA)	$582 million	-0-	$582 million (100%)
Environmental Protection Agency (EPA) Construction Grants	$3.4 billion	$2.4 billion	$1 billion (29%)
TOTAL:	$4.97 billion	$2.47 billion	$2.50 billion (50%)

Have state and local governments picked up the slack? Unfortunately not, as records indicate public construction as a percent of total construction volume is lower now than at anytime since 1947. Sharp drops in the public share of new construction in recent years have lowered the public share to 17.9% in 1984 -- far below the 30% share as recently as 1975. In fact, the total annual expenditure by the federal, state and local governments for public capital investment projects has declined by more than 50% in just the last 15 years. It is crucial to realize that federal funding for water pollution control programs has decreased more than 40 percent since fiscal 1980. That percentage will increase if the Administration's fiscal 1986 budget requests are approved.

During that same 1980-1986 period, federal spending for defense and entitlement programs has skyrocketed. Defense spending alone will have risen more than 55% to a staggering $313 billion in the President's fiscal '86 budget. Given the link between sound sewage treatment systems and future economic growth, we feel strongly that these programs have already done their share in limiting federal spending and, as a result, we feel justified in advocating an increase in federal funding to a total in the range of $2.9 - $3.4 billion yearly.

State Revolving Funds

In light of the immense price tag placed on meeting the nation's water quality goals, nearly every group and individual familiar with the problem -- contractors, environmentalists, engineers, manufacturers and municipal officials -- agree on one point: the need to develop alternative means of funding wastewater treatment systems, other than the federal construction grants program, is imperative. NUCA has studied a variety of proposals and concluded that the most effective mechanism would be state revolving fund programs.

Under this concept, capital funds would be deposited in special state loan accounts and no- or low-interest loans would be awarded to eligible municipalities for the construction or repair of roads, bridges, water and wastewater treatment systems. Funds repaid to the program by these municipal governments, as well as any interest earned, would represent a source of capital for these and additional projects. Thus, loan repayments will maintain the equity capital of the loan program and provide it with a source of funds for subsequent loans.

States maintain a priority list of thousands of wastewater treatment projects waiting to receive an EPA construction grant. Under the current grant program, only a small handful will receive funding while the remaining localities must either finance projects on their own or, more likely, postpone construction in hopes of receiving a federal grant at some future time. A low-interest loan from a State loan program would provide those municipal governments with an affordable source of financing and enable many more projects to go to construction.

One potential problem we see in Section 220 of H.R. 8 is its failure to dedicate projected repaid wastewater treatment loans monies for additional sewage treatment projects. As the proposal is now worded, loans made by the bank that make use of federal EPA construction grant money must be earmarked for wastewater treatment construction. However, repayments of those loans -- to be used as second and third generation loans -- could be used for other projects unrelated to water quality improvement. In short, we feel the Congress should permit States to use their EPA grants in a loan program, but it should include language requiring that those wastewater loan repayments be dedicated toward additional sewage treatment projects.

There is no doubt that the use of EPA grant money as loans could likely result in an increase in user fees paid by businesses and households. However, Mr. Chairman, NUCA feels there is a crucial need for owners of American homes and businesses to pay increased rates for wastewater treatment services. The people of this nation have grown accustomed to paying artificially low user fees for sewage disposal services. Nationwide, a survey of 66 cities showed that the average family paid less than 50 cents per day for collection and treatment of their wastewater. It is this practice that is largely responsible for the decaying condition of many of our municipal sewer systems. The low rates determined by local authorities are hardly adequate to pay only for the cost of treatment plant or pipeline construction; they do not provide the funding necessary to operate and maintain the system in future years. Wastewater treatment and disposal is a vital, yet costly, public service and the American consumer must realize the true cost of that service.

Our industry also supports the proposal requiring States to contribute a a share equal to 20% of its federal grant for inclusion in its revolving loan funds. This requirement will compel States to more responsibly oversee the fund and increase their accountability to ensure the loan money is used to finance only truly necessary construction work.

Collectors, Rehabilitation, Combined Sewer Overflow Correction

Mr. Chairman and Members of the Committee, we wish to take this opportunity to stress the importance of three categories of wastewater treatment construction for which Congress limited eligibility for federal funding in the 1981 amendments. As you will recall, direct federal financing for the sewer rehabilitation, collector pipeline construction and combined sewer overflow correction is now restricted to each Governor's "20 percent set-aside discretionary fund."

NUCA and other groups strongly disagreed with the decision to so limit funding for these categories because we feel funding for their construction will be curtailed. Until statistics are available to accurately guage the impact of this change on these areas of construction, we urge you to make no further reductions in the 20% Governor's set aside.

In many regions of the nation, particularly, but not limited to, the older urban areas of the Northeast and Midwest, the major problem in meeting local water pollution needs lies not in additional wastewater treatment plant construction, but in overhauling and upgrading their sewer pipeline systems.

Rehabilitation and repair is crucial in correcting leakage in these systems. In 1980, EPA estimated that infiltration/inflow constituted 25% of total existing flow to the nation's treatment plants. As a result, plants were treating as much as one-third more water flow than necessary.

Combined sewer overflow (CSO) correction remains a critical and costly problem in many areas. Some cities with a significant combined sewer system -- single pipelines transmitting both sewage and rainwater runoff (collected via street drains) -- contribute a large share of the pollutants in their waterways to CSO overflows. Surveys indicate CSO correction constitutes the largest percentage of many states' overall construction costs, and NUCA fully supports Section 11 (a.) of the bill, which re-establishes full eligibility for federal funding of CSO correction construction projects.

There is no doubt that the construction of collector sewer systems is a crucial element in this nation's clean water effort. Wastewater treatment systems are just that: systems. The efficiency of a system is dependent upon each of its parts. Sound collector pipelines alone are inadequate if the treatment plant is obsolete and, conversely, a sophisticated treatment plant does little good if the pipelines carrying wastewater to it are aged, leaking and corroded. Significantly, 50% of the 1,400 city governments that participated in a National League of Cities survey said their wastewater collection systems need major repair.

Currently, approximately 60 million Americans are without sewer service. The alternative is largely the use of septic tanks. When operated and maintained properly by owners living on suitable soil, septic tanks can provide a cheap and efficient method of waste disposal. However, studies indicate that at any one time, 20 to 60 percent of the septic tanks in the United States are malfunctioning. More importantly, malfunctioning tanks are a major source of both groundwater and surface water pollution.

The recent EPA Needs Survey projects a need for collector sewers by the year 2000 costing some $23 billion. If forced to bear the burden of financing collector construction, communities of all sizes would be hard-hit. Municipalities with a population of 25,000 or less would be particularly affected because, due to a lower population density, collectors constitute nearly 80 percent of the total project cost. Eliminating collector sewer eligibility represents a "big city" bias in the program by unfairly penalizing smaller communities.

Mr. Chairman and Members of the Committee, as utility contractors who replace existing sewer pipelines on a daily basis, we have a unique first-hand knowledge of the condition of these collector lines. Often, they have been in use for nearly a century. Many are constructed of outdated materials such as wood or brick. They are cracked, broken and corroded beyond repair due not to faulty materials, but due simply to age, overuse and neglect. Our position can best be stated by citing a recent survey which found that from half to as much as 90 percent of the flow in some urban collection systems is ground and surface water as a result of infiltration-inflow. We contend that replacing or repairing collector sewers would result in more efficient and less costly operation of existing treatment plants as well as the construction of more efficient new plants in the future.

Strict safeguards now contained in the EPA program prohibit funding for the future population. However, the replacement of existing collector pipeline systems remains a vital part of the water pollution abatement effort. While every effort must be made to preserve funding dollars through the repair and rehabilitation of these pipelines, the fact remains many collector systems are beyond repair and their failure to adequately convey sewage to treatment plants remains a public health hazard. In these instances, States should be given the flexibility to finance truly necessary collector construction free of federal limitations.

In supporting "full" eligibility for collector pipeline construction under State loan programs, we want to stress that collectors represent more than just growth. NUCA members are among the first to admit that some municipalities used EPA grant funds to build unnecessary collector lines to encourage growth in residential areas.

In short, we urge you to grant States maximum flexibility in the categories of construction eligible for financing through their revolving loan funds. Unless adequate funding is provided for these three categories of construction -- particularly collector pipelines -- the Nation's battle against water pollution is being fought with a half-empty arsenal.

Turnkey Projects

While NUCA strongly supports the vast majority of the provisions contained in H.R. 8, the association is opposed to Sec. 59 of the measure, which permits the use of EPA money to finance "turnkey projects."

NUCA is committed to the competitive bidding system as the most effective means of awarding contracts for the construction of public works. Under this system, all qualified construction companies are given an equal opportunity to compete for a contract. Such open competitive bidding is not part of most turnkey projects.

We feel that while some turnkey projects may result in a cost savings, many more result in increased construction costs due to the lack of competition from other contractors who may be equally interested and qualified to build the project. The majority of construction firms involved in wastewater treatment projects are small businesses that lack the expertise or financing to enter into turnkey projects.

NUCA feels the competitive bidding system, whereby the lowest qualified bidder is awarded a contract, remains the most effective means of building public treatment systems. We oppose federal financing for turnkey projects.

Summary

This nation has made significant progress in its effort to clean our waters, yet the job is only partially complete. To those who may be critical of the costs involved and their impact on the federal budget, we offer this analysis: a reduction in the federal budget is partially dependent upon economic growth, and economic expansion is dependent upon a sound infrastructure. Inadequate sewage treatment is a major obstacle to both a clean environment and to economic development, and it is a crucial element in the nation's economic recovery. As the utility contractors of this nation, we stand ready and able to contribute to the twin goals inherent in this EPA program: environmental quality and economic growth.

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TESTIMONY OF

THE WATER AND WASTEWATER EQUIPMENT MANUFACTURERS ASSOCIATION, INC.

ON AMENDMENTS TO THE

CLEAN WATER ACT CONSTRUCTION GRANTS PROGRAM

BEFORE THE

HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE

SUBCOMMITTEE ON WATER RESOURCES

APRIL 25, 1985

Mr. Chairman and Members of the Subcommittee, I am Ken Spear of Infilco Degremont, Inc. and a member of the Board of Directors of the Water and Wastewater Equipment Manufacturers Association, Inc. (WWEMA).

WWEMA is a 77-year old organization of over 120 corporations that develop technology for and manufacture and supply equipment, materials and services to the water supply and water pollution control industries. Our plants, in nearly all 50 states, employ some 50,000 people.

WWEMA welcomes this opportunity to again participate in the reauthorization of the Clean Water Act through commenting on proposals contained in your bill, HR 8, the Water Quality Renewal Act of 1985. We believe that early attention to these proposals will ensure passage of amendments that, while not necessarily fulfilling the desires of all involved, will at least assure the wastewater treatment industry of continued, dependable funding sources for meeting the sewage treatment needs of the nation.

The 1984 EPA Needs Survey predicts total needs through year 2000 of $108.9 billion, a decrease of $10 billion from the 1982 estimated needs of $118.9 billion. The cost of sewage treatment facilities for the current population is $40.6 billion according to the Survey. This includes the bare minimum in treatment facilities (primary, secondary and advanced treatment, corrections for infiltration/inflow problems and new interceptor sewers). When costs for eligible treatment facilities are extrapolated to the year 2000, $53.1 billion is needed; but this sum does not include reserve capacity beyond October 1, 1990.

The potential federal investment to meet all eligible needs through the year 2000 is estimated to be $35.8 billion. This is less than required to fund, at 55 percent, the estimated 1984 needs of $85 billion.

WWEMA recently completed a survey of state water pollution control administrators with respondents representing 90 percent of total funds allocated through the construction grants program. Seventy-three percent (32 of 44 responding) indicated that the July 1, 1988 deadline will be unachievable due mainly to a lack of financial capability. The state water pollution control administrators surveyed by WWEMA also cited the inability of local governments to provide their share of the project cost and the lack of feasible alternative funding mechanisms as major problems.

Several of the states responding stated their expectation that the 1988 deadline would, as in the past, be extended. This expectation must not be fulfilled. We urge you to require all entities receiving federal grants or loans under the construction grants program, as well as those entities unable to secure federal assistance, to meet the National Municipal Policy requirements of compliance or an enforceable plan by 1988.

CONSTRUCTION GRANTS PROPOSAL -- WWEMA is pleased, therefore, to offer our support to the concept, if not the exact form, of your proposal for a dual construction grants and state-run loan program.

WWEMA believes that any funding program for sewage treatment facilities must consider the National Municipal Policy July 1, 1988 deadline for municipalities to achieve secondary treatment or to have an enforceable plan in place. We are pleased that you would require states to dedicate loan funds to projects on the state priority list. However, WWEMA believes even greater emphasis should be placed on meeting the deadline; grant funds, as well as loan funds, should be dedicated first to facilities attempting to comply with the Act either through ongoing construction or the existence of an enforceable plan.

The progress made to date in meeting the goals of the Act can be attributed in large part to federal grant dollars and lenient compliance deadlines. Yet, the federal government cannot continue to support the construction grants program at a level adequate to meet the $108.9 billion EPA estimates will be needed by the year 2000, especially in light of the increasing federal deficit.

Without federal support in some form, municipalities will be unable to achieve the July 1, 1988 Clean Water Act deadline. This results in a catch-22 situation in which federal deadlines must be met but there is little or no federal funding to meet those deadlines.

Recognizing the dual difficulties of complying with federal laws without federal assistance and continuing federal grants in a time of budget cuts, WWEMA proposes replacing the current construction grants program with a loan guarantee program over a five-year period. The short transition time serves two purposes: it provides continued funding stability to support the goals (and the July 1, 1988 compliance deadline) of the National Municipal Policy and it encourages states and municipalities to develop their own financing mechanisms for sewage treatment in an orderly fashion. We cannot stress strongly enough the need to remove the federal government from the sewage treatment facility construction business in the near future, with a phase in of a state-administered loan guarantee program.

WWEMA believes the logical time to begin the transition from federal grants to self-supporting loan guarantees is now, when the construction grants program is undergoing reauthorization and amendment. Under WWEMA's proposal, the grants portion of the dual program would be phased out by 1990, when the loan guarantee portion would be fully implemented. The transition should be complete by 1990, when all federal funding should end.

The concept behind phasing out the grants program and instituting a loan guarantee program is to encourage municipalities to obtain low interest financing through the bond market and private institutions. This will remove local jurisdictions' dependency on grants and maintain the revenue flow into the program. Loan guarantees will provide for maximum leveraging of financial resources to construct far more wastewater treatment facilities than possible under a direct grant or loan program.

WWEMA proposes increasing the $2.4 billion annual authorization to $5 billion in 1986 to provide both assistance and incentives to communities to meet the July 1988 deadline. This rise in grant funding is similar to that proposed in HR 8 and is necessary to give as many municipalities as possible an incentive to begin planning, if not construction, of wastewater treatment facilities prior to the 1988 compliance deadline.

To achieve a self-supporting loan guarantee program by 1990, $1 billion of the $5 billion annual appropriation would be dedicated to loan guarantee programs in states with a program framework in place. The grants portion would continue to decrease by $1 billion each year, and the loan funding to increase by the same amount, through 1990. The following year, the construction grants program would be ended and the state-run construction loan-guarantee program would be fully funded in all 50 states. Thus, under the WWEMA proposal, federal funding for, as well as federal participation in, sewage treatment would cease in 1990.

While we recognize your support of a four-year funding commitment followed by reexamination of the status of the construction grants program to determine future funding requirements, we believe the situation has changed sufficiently to warrant the slightly different approach WWEMA proposes. It is important to recognize that as long as federal monies are available, municipalities (facing their own tight budgets) will be reluctant to spend local dollars on sewage treatment plant construction. The five-year transition from grants to loan guarantees we propose will end federal participation in 1990 while ensuring that alternative funding resources are optimally utilized to construct sewage treatment facilities.

WWEMA believes that states should be given some direction in setting up revolving loan guarantee funds. The requirements proposed in HR 8 are a large step in the right direction. We would urge you to incorporate a requirement that states must obligate loan funds within one year of receiving them or be ineligible for additional federal funding, similar to the provision in S 652.

Any loan guarantee program must include viable means for retiring the debt. Additional benefits accrue if loan retirement generates additional revenues that can then be used to maintain existing systems or to finance new projects. It is imperative that states design a mechanism for repayment that will result in self-sufficiency. User fees would achieve both objectives while allowing the municipality to equitably allocate costs of wastewater treatment among dischargers. In addition, user fees would enhance access to capital markets by attracting investors to projects with a dedicated, guaranteed flow of revenue.

Private sector involvement is equally important. With the budgetary constraints facing all levels of government, pollution control efforts must compete with expenditures for myriad other government-supplied services and public works projects. The private sector should be encouraged to fill the gap left by too little money for too many government responsibilities. WWEMA urges that tax incentives such as accelerated depreciation and investment tax credits be maintained to enhance private financing of wastewater facilities.

Finally, despite the wide interest in privatization, developing a universal model for private involvement in construction and management of wastewater facilities will take a number of years. Until that time, the bond market will continue to be the primary source of funds to replace the decreasing federal involvement in wastewater treatment. Industrial development bonds provide one source of capital for private industry interested in building wastewater treatment facilities; restrictions on IDBs for sewage treatment should be removed.

INNOVATIVE/ALTERNATIVE TECHNOLOGY -- Financial incentives provided in the 1981 Clean Water Act amendments to encourage use of innovative and alternative technologies should be continued without change. The mandatory four-percent set-aside has resulted in over 2900 grant awards to design and/or construct over 1400 facilities with innovative and alternative components in less than five years; 750 alternative technology projects are in the wastewater treatment field. Some 200 I/A projects are now in operation. There are projects either in operation or under construction in nearly all 50 states.

The I/A program is used extensively in most states with smaller urban and rural areas; only five states and the District of Columbia have not taken full advantage of I/A funding to assist small cities and rural areas to develop sewage treatment facilities. Thirty-two states have relied extensively on the I/A program since its inception.

As suppliers of technology used for treating our nation's water resources, WWEMA members continue to dedicate their research efforts, and dollars, to developing new techniques for improving the quality and quantity of the nation's waters through conservation and reuse. The incentive to commit large financial resources to research results from the current I/A program. It must remain available to ensure continued investment in developing cost-effective treatment techniques.

While much has been accomplished under the I/A program, there remains a hesitancy on the part of the engineering community to support using I/A processes in a given project. Currently, these processes represent only a risk to the engineer's reputation without an incentive to take that risk. As one WWEMA member explained, "the engineering firms would prefer to go to Safeway" to purchase known, conventional treatment processes.

The problem results in large part because engineers seeking to use an innovative or alternative technology are faced with additional paperwork and increased costs. As a result, the design engineer will often select the conventional approach in lieu of a new concept.

To fulfill the goals of this program, WWEMA recommends that the engineer be provided additional incentives, such as a financial reward, for successful use of an I/A process. The reward could take the form of sharing in the savings resulting from use of a new technology.

As the industry explores new, cost-effective methods for removing pollutants from our waters, we strongly urge Congress to retain the I/A program and consider extending the incentives to the engineers who ultimately hold the key to the program's success.

TURNKEY PROJECTS -- WWEMA endorses the concept of turnkey projects in which one party is responsible for the planning, design and construction of a wastewater treatment plant. This concept could provide several advantages to communities beyond the current procurement method under the EPA construction grants program:

- improved quality plant performance;
- greater use of innovative technology:
- reduced overall costs; and
- expedient completion of plant construction.

This package approach is commonly used by industrial dischargers to meet their NPDES permit requirements; it is a fact that industrial firms have a better compliance track record than their municipal counterparts. Turnkey construction could decrease by one-third to one-half the time required under current municipal methods for sewage treatment plant construction. For example, one industrial sludge treatment plant was designed, constructed and placed in operation within nine months using a turnkey approach. A similar project for a municipal client under the EPA construction grants program would normally require a minimum of two and a half years, up to a maximum of six years to complete.

The attractive feature of a turnkey contract is the accountability of a single party for designing, constructing and guaranteeing performance of a POTW. Under a turnkey approach, prior to preparation of final plans and specifications the engineer will evaluate alternative methods and then select the most effective one. The engineer solicits bids from competing manufacturers and selects equipment based on purchase cost as well as competition, innovative techniques, quality, service, operation know-how, and how the equipment fits the overall scheme of the process. The manufacturer submits detailed drawings, which are incorporated into the final plans and specifications given to the contractor. Thus, the engineer and user control the equipment quality and technological balance of the plant. This method leads to lower construction costs and speeds up the time cycle for plant construction.

Under the current method used by the public sector, the contractor selects the equipment. The markup that the contractor adds inflates the cost of the equipment some 10 to 20 percent and provides no benefit to the user or the equipment manufacturer. In reality, it provides no benefit to the contractor either, since including the mark-up in the contract extends his risk and financial obligations.

Thus, many contractors, especially minority contractors, cannot afford to bid a contract because the overall cost is beyond their borrowing or bonding capabilities. Excluding the equipment cost from the contract would reduce the overall contract fee and allow more contractors to bid a project.

The turnkey approach encourages a team effort while providing quality facilities at a cost savings. By contracting with one party, the municipality is assured that the project will meet its effluent limitations in a timely, cost-effective fashion for the life expectancy of the plant.

WWEMA supports Section 59 of H.R. 8 which would allow use of turnkey contracts for treatment works with an estimated total cost of $8 million or less.

NONPOINT SOURCE POLLUTION CONTROL -- The goals of the Clean Water Act cannot be met without addressing and regulating nonpoint source pollution. This source of water pollution can cause serious degredation of surface waters. WWEMA supports the provision in HR 8 that would make federal funds available to states to encourage development of a well-integrated nonpoint management plan.

NPDES PERMITS -- Effluent discharge is regulated under the national pollutant discharge elimination system (NPDES). NPDES permits are currently issued for five year periods either by EPA or by states with delegated authority. At the end of the five-year permit period, the discharger must apply for a new permit, which when issued will incorporate any more stringent effluent limitations promulgated that apply to the discharge being permitted. The permit renewal application must include an analysis of the discharge for all section 307 toxic pollutants, not just those listed in the original permit. Thus, the five-year NPDES permit has been called the primary regulatory tool for controlling toxic discharges.

EPA has been slow in issuing new and revised permits, resulting in a backlog of major proportions; some 40 percent of existing NPDES permits have expired and revised permits have not been issued. However, EPA expects to eliminate the backlog of expired major municipal and industrial permits by the end of fiscal year 1986; the agency has not addressed so-called minor permits. The delay in issuing permits has been blamed primarily on two issues: the five year permit period and the lack of BAT guidelines for industrial dischargers.

Evidence of the shrinking backlog is supported by EPA's efforts to issue those guidelines; 24 of 29 industrial categories were completed by the end of 1984. Guidelines for the remaining five categories should be completed by mid-1986.

Two solutions have been proposed to change the NPDES permit program by either lengthening the permit time from five to ten years or distinguishing between major (toxic and nonconventional) and minor (conventional) permits, with major permits being granted for five years and minor permits for ten years.

The problem with issuing ten-year permits for dischargers of conventional pollutants is similar to that of issuing ten-year permits for toxic and nonconventional dischargers: the effluent will not be reassessed for ten years, potentially allowing toxic pollutants to enter the receiving waters during that time with no controls.

To ensure continued control of toxic discharges, the effective period of all NPDES permits must be kept at the current five years. The proposed ten-year permit will delay control of toxic pollution simply by delaying the inclusion of limits on toxic discharges to the end of the longer permit period. Simply put, neither EPA nor Congress should be in the business of permitting pollution but in the business of controlling it. That control could be increased by mandating more frequent assessments of water quality criteria and reopening NPDES permits whenever the criteria become more stringent, regardless of permit expiration.

WWEMA believes that with Congress, EPA, the industry and public interest organizations working together, we will be able to continue to make progress in cleaning up the nation's wastewaters. WWEMA's formal positions on future financing of the wastewater treatment program and enforcement are attached. Thank you for your attention to our comments and suggestions. I would be pleased to answer any questions you might have.

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WWEMA

WWEMA POSITION PAPER ON FUTURE FINANCING OF WASTEWATER TREATMENT FACILITIES

The Water & Wastewater Equipment Manufacturers Association, Inc. (WWEMA) is an association of private business organizations which supply materials and equipment for facilities that produce drinking water, and clean up polluted water.

WWEMA wishes to applaud the Environmental Protection Agency in its effort to develop a feasible strategy for financing the needs of municipalities in meeting the Clean Water Act requirements.

We further wish to commend the Administration in carrying forward its commitment to ensure expedient compliance by all POTWs and to achieve the water quality objectives as set forth in the Act, as evidenced by EPA's National Municipal Policy. If implemented as outlined, WWEMA believes the statutory deadlines and water quality goals will be achieved in the most expedient and efficient manner possible. Only through a strengthened enforcement effort can the agency ensure that the massive investment made in the EPA Construction Grants Program was not spent in vain.

WWEMA recognizes the inability of the federal government to continue supporting the grants program at a level necessary to meet the $120 billion in needs by the year 2000. As long as federal monies are available, there will be a reluctance on the part of municipalities in moving ahead on their own without federal assistance to meet the needs of the Act. As such, WWEMA recognizes some alternative means of financing are required. However, it would be detrimental to the continued progress of the program if all federal support were removed after 1985 and municipalities were faced with total financial responsibility in meeting their mandated compliance deadlines.

The following recommendations are offered by WWEMA in the effort to find solutions to the financial requirements faced by municipalities.

* * * * * * * * * * *

WWEMA recommends a combined grants/loan guarantee program be implemented in fiscal 1986, with an eventual phasing out of the grants portion by fiscal 1990. This transition will provide continued funding stability, while allowing states and municipalities time to develop a financing mechanism for managing their loan guarantee program and achieving self-sufficiency.

The funding authorized and appropriated between fiscal years 1986—1990 for both grants and loan guarantees should be set at a minimum level of $5 billion annually.

WWEMA supports the commitment of federal funds to a revolving loan guarantee program for use by the states and would also support, if preferred by Congress and the Agency, a low-interest loan program to municipalities. This would provide a continuous flow of funds through the repayment of loans to the state for reissuance, thus requiring only a short-term investment by the federal government, and a long-term supply of financing to municipalities.

* * * * * * * * * * *

WWEMA recommends the implementation of user fees as a means of retiring loans and fairly allocating the costs of treating the discharge of pollutants, as well as to generate revenues to maintain existing systems to provide financing for new projects.

User fees would further enhance access to capital markets. Investors are more apt to invest in projects with a dedicated, guaranteed flow of revenue. It is imperative that municipalities design such a fee mechanism in order to achieve self-sufficiency.

* * * * * * * * * * *

Finally, responsibility must be assumed by the Agency to educate state and local governments on other financing methods available to supplement the scheduled reduction in federal grants to insure that continued progress is made in our clean-up effort. WWEMA believes it will take a combination of several forms of financing beyond the proposed loan or loan guarantee program to meet the massive needs identified by the Agency.

With the monetary limitations facing all levels of government to provide pollution control efforts necessary for a healthy environment, it is apparent that private-sector involvement must be encouraged to fill the void.

- WWEMA supports the use of tax incentives in the form of accelerated depreciation and investment tax credits to enhance the attractiveness for private investors to finance construction of wastewater facilities.

Despite the wide interest in "privatization," the bond market will continue to be the primary source of funds to take up the slack left by dwindling federal dollars.

- WWEMA supports the use of industrial development bonds as a means for private industry to raise sufficient capital in building wastewater facilities. Any restrictions on IDBs will inhibit municipalities from using privatization financing.

WWEMA believes traditional approaches need to be examined and revised, where necessary, to make the best use of limited public resources. Creative financing methods can be utilized, where appropriate, to tap new sources of revenues and increase the flexibility of state and local governments in public facilities financing.

* * *

WWEMA

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WWEMA POSITION PAPER ON ENFORCEMENT

The Water & Wastewater Equipment Manufacturers Association, Inc. (WWEMA) is an association of private business organizations which supply materials and equipment for facilities that produce drinking water, and clean up polluted water.

WWEMA would like to commend the initiative taken by the Environmental Protection Agency's Administrator, William Ruckelshaus, in signing the National Municipal Policy. If implemented as outlined, WWEMA believes the statutory deadlines and water quality objectives of the Clean Water Act will be achieved in the most expedient and efficient manner possible.

This policy could not have evolved at a more opportune time in the life of the EPA Construction Grants Program. Latest estimates show that more than 1,700 publicly-owned treatment works are not operating in compliance with their pollution control limits. In addition, a large number of municipalities still need to build treatment facilities (more than 1,300 major and 3,400 minor public sewage treatment plants) in order to achieve compliance. Further, a recent General Accounting Office study showed that up to 82% of municipal and industrial discharges surveyed in six states violated effluent limitations in their permits over an 18-month period.

If the above numbers are to be reduced and not increased, then it becomes imperative that a strong and vigorous enforcement and monitoring program is of paramount importance to the Congress, EPA, states and the public. Only through a strengthened enforcement effort can the EPA ensure that the massive sums of money already invested in the grants program were not spent in vain.

In the past, the bulk of enforcement activities have been targeted against industry, rather than the municipalities. Without an aggressive effort, there exists no fiscal" incentive for municipal officials to meet their effluent permit requirements.

With greater responsibility being assumed by the states to perform the day-to-day operation and management activities of their water program, the Agency faces a much greater responsibility to expand their monitoring, inspecting and auditing activties to ensure that the construction grants program - as a whole - is being carried out in the most efficient and cost-effective manner. WWEMA fully supports the delegation of this program to the states to gain administrative efficiency. But this shift should not result in a lessening in EPA's role as chief regulator/enforcer to assure the protection of public health. EPA's goal is to obtain compliance by publicly-owned treatment works as soon as possible, and no later than July 1, 1988. The policy also states "where there are extraordinary circumstances that preclude compliance" by this date, a timely, alternative schedule must be developed. WWEMA believes that a clear and concise definition of 'extraordinary circumstances" must be developed immediately to avoid any misunderstanding at a later time which could result in further delays.

The Clean Water Act of 1972 encouraged industry to allocate more resources to the clean water industry. In response, manufacturers of wastewater equipment invested their resources in research and development, expanded their manufacturing facilities and developed technologies to meet the growing demand for cost-effective solutions to our nation's water pollution problems. In short, WWEMA members responded in the best tradition of free enterprise to Congressional leadership.

Today's wastewater treatment plants employ complex and sophisticated technologies which require a high level of skilled and conscientious operation. In our attempts to get a wastewater treatment system in place and on line, the need for proper operation and maintenance provisions is often overlooked. No matter how well designed or constructed a plant might be, and despite the quality of equipment utilized, wastewater treatment plants have and will continue to incur, major problems in performance unless O&M procedures are addressed.

If the July 1, 1988 date is not met, action should be taken against the appropriate state and/or municipality. This action should take the form of fines or withholding of federal funds from the state in question until they are in compliance.

Congressional and EPA leadership is mandatory if we are to reverse further deterioration of the momentum witnessed in the Clean Water Program since 1980. Our industry stands ready to renew its commitment to improved energy-efficient equipment and processes with greater expenditures for R&D, providing the Congressional and EPA leadership demonstrate their commitment to enforcement which will assure our nation that the goals of the Clean Water Act will be met for future generations to enjoy.

* * *

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SUMMARY OF PROJECTS
USING INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

Alton, Missouri: This 0.1085 mgd plant received an I/A funding award for use of an innovative recirculating sand filter developed by Parkson Corporation. The Parkson system differs from conventional systems using two filters (one operational and one being cleaned) by using a single filter that is continuously cleaned during operation; it can handle higher solids and loading rates than conventional filters, requires no moving parts and operates on a small amount of compressed air, reducing maintenance and potential malfunctions. The award was based on capital cost savings and energy reduction. Project consultant: Crane & Fleming Company.

Belfont, Pennsylvania: This new facility will use an innovative filter combined with a scouring device in the backwash bed. The filter and scouring device were developed by Environmental Elements Corporation as a cost-effective method of preventing formation of "mud balls" in the sand bed. Rather than the conventional media rake or mechanical drag shackler, the scouring system will use a water wash of high pressure jets of water injected downward into the sand bed to break up coalesced sand. The I/A award was based on the cost-effectiveness of the scouring method as well as the innovative filter. Project consultant: Gwynn, Dobson & Forman.

Burley, Idaho: This 2.25 mgd facility received its I/A award on the innovative microscreen clarifier developed by Envirex. The viability of the high-rate microscreening process for direct polishing of effluent of mixed film reactors produces suspended solid effluents finer than 10 mg/l, exceeding the performance of conventional clarification units. Subsequent full-scale research has documented the capability of a 21 microscreen polyester to produce an advanced secondary effluent when treating a well-oxidized rotating biological contactor waste. The award was based on both cost and energy savings. Project consultant: CH2M Hill.

Cleveland, Virginia: The Envirex Vertical Loop Reactor (VLR) process used in this 0.04 mgd facility is a biological treatment system using proven biological pathways to provide treatment meeting a wide variety of effluent quality objectives. The system can be used to increase oxygen transfer efficiency well in excess of coarse bubble aeration and similar to that of fine bubble aeration, but without the maintenance associated with fine bubble aeration. The rectangular, common wall construction of the VLR results in economical facility costs and can be readily applied to retrofit of existing concrete tankage. The VLR process can provide advanced secondary treatment, thus eliminating the need for costly tertiary filtration.

El Paso, Texas: The Fred Hervey Water Reclamation Plant, a 10 mgd project, uses two Zimpro, Inc. units: 2-stage PACT system for nitrification, denitrification; and wet air regeneration for spent carbon. The PACT system was selected for I/A funding based on potential savings and environmental benefits. The plant also received I/A funding for the environmental benefits of its sludge composting system. Project consultant: Parkhill, Smith & Cooper, Inc.

Eminence, Missouri: The 0.29 mgd facility received I/A funding based on cost savings and energy reduction from use of Parkson Corporation's recirculating sand filter. The Parkson system differs from conventional systems using two filters by using a single filter that is continuously cleaned during operation; it can handle higher solids and loading rates than conventional filters, requires no moving parts and operates on a small amount of compressed air, reducing maintenance and potential malfunctions. The award was based on capital cost savings and energy reduction.Project consultant: Missouri Engineering.

Ft. Meyers, Florida: This 24 mgd facility will use two processes developed by Eimco Process Equipment Company. The Carrousel oxidation ditch is an aeration process using extended air-activated sludge; the Bardenpho phosphorus removal system is a biological removal process. The I/A award was based on reductions in capital costs and energy usage. Project consultant: CDM.

Frederick, Maryland: Parkson developed the intra-channel clarifiers for this 7 mgd project. The project received I/A funding based on cost savings; it was designed by Greenhorne & O'Mara, Inc.

Hardinsburg, Kentucky: The 0.73 mgd facility uses a hydraulically assisted Rotating Biological Contactor developed by Envirex. The contactors use the plant process flow as it fills air cups on the air-drive RBC to provide the energy needed to turn the RBC. In a conventional system, the energy is provided by electro-mechanical drives or low-pressure diffused air drives. The energy savings is realized from optimum usage of the plant water flow. The I/A award was based on this energy savings.

Johnstown, Ohio: This 0.75 mgd project uses a continuous clean sand filter developed by Parkson Corporation. The I/A funding award was based on cost savings. Project consultant: Evan, Mechwart, Ambleton & Tilton, Inc.

Kalamazoo, Michigan: The 53.5 mgd Kalamazoo Treatment Plant uses the Wastewater Reclamation System developed by Zimpro, Inc. The process involves PAC addition to aeration tanks and regeneration by wet air oxidation; the WRS will be used to treat domestic, industrial, commercial and paper mill wastes. The I/A award, based on cost effectiveness and environmental benefits, will provide the city a bonus of over $2.2 million, in addition to normal funding. Project consultant: Jones & Henry Engineers, Ltd.

Mt. Holly Springs, Pennsylvania: This 0.3 mgd facility uses the Eimco Process Equipment Company's patented Carrousel oxidation ditch, an extended air-activated sludge process. The I/A award was based on a combination of reduced capital costs over conventional activated sludge systems and energy savings. Project consultant: Tracy, Greenland Engineers.

Newton, Mississippi: This 0.77 mgd facility received its I/A award on the innovative microscreen clarifier developed by Envirex. The viability of the high-rate microscreening process for direct polishing of effluent of mixed film reactors produces suspended solid effluents finer than 10 mg/l, exceeding the performance of conventional clarification units. Subsequent full-scale research has documented the capability of a 21 microscreen polyester to produce an advanced secondary effluent when treating a well-oxidized rotating biological contactor waste. The award was based on cost savings. Project consultant: Wayne, Watts, Engineer.

Oneonta, Alabama: A new facility being constructed in this city will use an innovative biological aerated filter developed by Eimco Process Equipment Company. The filter combines biological processes and liquid/solid separation in the same tank, reducing the land area needed for the facility. The I/A award was based on reduced capital costs and energy savings. Project consultant: Ben Carr Associates.

Owensboro, Kentucky: The facility will use an intra-channel clarifier in an oxidation ditch developed by Eimco Process Equipment Company. The I/A award for this new project was based on both capital cost savings and reduced energy requirements. Project consultant: Johnson, Dep & Quisenberry.

Payson, Arizona: This 2.4 mgd plant uses the patented Bardenpho phosphorous removal system developed by Eimco Process Equipment Company. The I/A award was based on capital cost savings and energy use reduction. Project consultant: Moore-Knickerbocker.

Scottsbluff, Nebraska: This 3.14 mgd facility received its I/A award on the innovative microscreen clarifier developed by Envirex. The viability of the high-rate microscreening process for direct polishing of effluent of mixed film reactors produces suspended solid effluents finer than 10 mg/l, exceeding the performance of conventional clarification units. Subsequent full-scale research has documented the capability of a 21 microscreen polyester to produce an advanced secondary effluent when treating a well-oxidized rotating biological contactor waste. Project consultant: John E. Olsson & Assoc.

Sterling, Colorado: This 3.88 mgd facility received its I/A award on the innovative microscreen clarifier developed by Envirex. The viability of the high-rate microscreening process for direct polishing of effluent of mixed film reactors produces suspended solid effluents finer than 10 mg/l, exceeding the performance of conventional clarification units. Subsequent full-scale research has documented the capability of a 21 microscreen polyester to produce an advanced secondary effluent when treating a well-oxidized rotating biological contactor waste. Project consultant: ARIX.

Wallace, North Carolina: A new facility being constructed in this city will use an innovative biological aerated filter developed by Eimco Process Equipment Company. The filter combines biological processes and liquid/solid separation in the same tank, reducing the land area needed for the facility. The I/A award was based on reduced capital costs and energy savings. Project consultant: Henry von Oesen.

Wheaton, Illinois: The Wheaton Sanitary District, serving 52,000 residents of Wheaton and Carol Stream, as well as parts of DuPage County, uses the Zimpro, Inc. HYDRO-CLEAR rapid sand filter, a modular system, for secondary treatment under normal conditions and primary treatment of stormwater flows. The filter qualified for I/A funding both because of the dual uses for primary and secondary treatment and the increased plant capacity achieved without additional biological treatment facilities. Project consultant: Strand Associates.

ASIWPCA

ASSOCIATION OF STATE AND INTERSTATE WATER POLLUTION CONTROL ADMINISTRATORS

Testimony on Reauthorization of the
Clean Water Act
by
J. Leonard Ledbetter, Commissioner of the
Department of Natural Resources
State of Georgia
for
Association of State and Interstate Water
Pollution Control Administrators (ASIWPCA)

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Association of State and Interstate
Water Pollution Control Administrators

TESTIMONY

Before the House Subcommittee on Water Resources
Committee on Public Works
and Transportation
April 30, 1985

Mr. Chairman, Members of the Subcommittee:

My name is J. Leonard Ledbetter and I am the Commissioner of the Department of Natural Resources for the State of Georgia. I am here today on behalf of the Association of State and Interstate Water Pollution Control Administrators **(ASIWPCA)**, to represent the States' perspective on the reauthorization of the Clean Water Act (CWA).

As the Vice President of ASIWPCA I am pleased to introduce our organization's Executive Director, Ms. Roberta (Robbi) Savage. As you know Mr. Chairman, Robbi and her staff are located here in Washington and are available to discuss with you the positions of ASIWPCA, and the States' responses to the various provisions being considered by the Senate during this reauthorization.

We commend this subcommittee and the full Committee for their interest and support in our environmental programs, particularly for your support, Mr. Chairman, of a strong Clean Water Act. Also, we appreciate the staff you have assembled to work on this reauthorization and we appreciate their arranging for this exchange of ideas on pertinent issues.

Our Association is a national, non-partisan organization of State officials, who on a daily basis implement the Clean Water Act, and for many of us, numerous other statutes as well. As professional managers of State water programs, the members of the ASIWPCA are committed to the environmental objectives set forth in the Clean Water Act.

Since our membership is concerned and involved with all aspects of the clean water program, we wish to present views and recommendations on several issues. However, in the interest of time, these will be submitted for your consideration as part of our statement and I will simply summarize our priority positions and then focus on Title II. We do ask, however, that the entire statement be made a part of the hearing record.

While much has been accomplished in the last decade, as documented in ASIWPCA's report, America's Clean Water, there is still much to be accomplished, and the work of safeguarding our people and protecting their environment is a never ending process to which we as environmental professionals have dedicated our careers. The key sections of the Clean Water Act identified below are of the highest priority to the States and need to be addressed as a part of the reauthorization:

- Section 106 - provide for **State management grants** to assist the States in administration of the program at the current authorized level of $75 million annually.
- Section 207 - provide for a minimum of $2.4 billion annually to fund **Construction Grants for Publicly Owned Treatment Works (POTWs)** and activate an effective transition from the current Federal grants to a program which authorizes the States to use the funds in innovative financing systems, including State revolving loan programs; create positive incentives and maximum flexibility for States to establish alternative programs and minimize disincentives.
- Section 208 - provide for the States to use certified **Water Quality Management Plans** to manage nonpoint source pollution with Federal financial and technical assistance.
- Section 301 - provide for the States to use **bioassays and biomonitoring** to identify toxic impacts and assure pollution sources are properly regulated to protect water quality of receiving streams, and in so doing not require specific numerical criteria to be established for toxic pollutants.
- Section 307 - enable the States to continue existing alternative local **pretreatment** programs where demonstrated to be effective.
- Section 309 - provide language to ensure that **civil penalties authority** for U.S. EPA does not result in disruption of ongoing, effective State programs and does not authorize U.S. EPA to act if the State is proceeding with an action.
- Section 402 - enable States to receive partial **National Pollutant Discharge Elimination System (NPDES)** permit delegation and provide for ten year permits with the requirement that the permit be re-opened whenever effluent limitations are promulgated or water quality standards are being violated.

- Section 502 - provide clarification of point sources to enable States and U.S. EPA to issue **permits for stormwater runoff** only when determined as needed to protect designated water use or when associated with permitted industrial facilities.

EXPLANATION OF HIGH PRIORITY AREAS

I. TITLE I

Section 106 - (State Management Grants)

Funding for implementation of TITLE I of the Act previously expired; therefore, Congress is urged to reauthorize funding for TITLE I, specifically maintenance of an authorization of **$75 million annually for FY 85 and future years** for Section 106 funding of State program grants.

II. TITLE II

Section 207 - (Construction Grants)

Mr. Chairman, you have asked that we address TITLE II, the Construction Grants Program for Publicly Owned Treatment Works (POTWs). We concur with the concept which you put into H.R.8 and believe that reauthorization of Section 207 is essential to assure:

° **further progress** by local governments in meeting the mandates (enforceable requirements) and water quality goals of the Clean Water Act.

° activating an **effective transition** from the current Federal grants program to a program that emphasizes alternative financing methods which promote state and local self-sufficiency for continued compliance.

Congress therefore is urged to continue a **$2.4 billion national authorization/appropriation, as a minimum,** for construction of POTWs consistent with the 1981 Amendments. Furthermore, **beginning with FY 86,** Congress is urged to afford individual States the opportunity to use some or all of their Federal construction allotments for a broad range of **innovative project financing methods**, including both taxable and nontaxable bonds and revolving loan funds.

Congress should also establish a mechanism, applicable during the latter part of the authorization period, which emphasizes implementation of such **innovative financing methods**.

Toward the end of the reauthorization period, **Congress should re-evaluate** the program and finalize the strategy for the transition, including consideration of:

° future Federal role in the program;

° continued emphasis on innovative funding methods;

° funding levels adequate to ensure the establishment of **long-term funding** programs at the State level **to address "treatment works" pursuant to Section 212** of the Clean Water Act, which will help assure continuing compliance with the goals of the Clean Water Act.

Congress should create **positive incentives** to encourage States to implement alternative financing programs on an accelerated schedule. In so doing, disincentives should be minimized. Congress is specifically urged to:

° encourage **transition to State Revolving Funds by not requiring States to match Federal capitalization grants**, recognizing that such State match is not required for existing grant funds. The budget and economic conditions of individual States could preclude or discourage transition to a loan program if State matching funds are required, especially given the uncertainty of future localized economic conditions.

° provide for **maximum flexibility** in administration of the State Revolving Funds by requiring that initial capitalization funds be used to meet the enforceable requirements of the Clean Water Act, but subsequent funds received through repayments of principal and interest be available to address categories of needs identified in Section 216 of the Act.

° provide that **States which have moved forward** expeditiously with transition to a State Revolving Fund program **should not be penalized** for such action in the establishment of future allocation formulas for distribution of grant and loan funds to the States.

ASIWPCA members have spent considerable time and effort evaluating the State Revolving Fund concept. ASIWPCA served as a member of the U.S. EPA Management Advisory Group (MAG) which recommends a $3.5 billion program annually for a period of ten years - providing States with the flexibility to utilize federal funding as seed money to establish a State Revolving Fund loan program. ASIWPCA also served on the EPA POTW Funding Study Steering Committee and Task Force. In addition, we were involved in the development of the Agency's Needs Survey, provided to the Congress in February. Based on all this activity and program development, ASIWPCA members approved, unanimously, the positions outlined in this Statement and our rationale for support of the State Revolving Fund approach is based on the following:

In 1981, Congress amended the Federal Clean Water Act to reduce the categories and scope of projects eligible to receive Federal financial assistance under the Construction Grants Program. In addition, the basic Federal share was reduced from 75% to 55%. These amendments signaled a clear intent to minimize the Federal financial exposure while providing a continued Federal fiscal presence in the completion of "core" municipal water pollution control needs. **"Core" needs are considered those treatment plants, interceptor sewers and infiltration/inflow correction needs related to the current population.** The 1984 U.S. EPA Needs Survey fixed the cost of these needs at $40.6 billion and estimated that the potential future Federal investment should be $35.8 billion. This Federal investment addresses both **completion of on-going projects and construction of new projects** necessary to meet the goals of the Clean Water Act.

The 1981 Amendments have now run their course in terms of funding authorization. An **early and clear signal of Congressional intent** with regard to future Federal fiscal involvement in municipal wastewater facilities construction is critical to continued progress toward the water quality goals of the Clean Water Act. In his 1983 Congressional testimony, William Ruckelshaus, then Administrator of the U.S. EPA, announced that the Agency would conduct a study of the appropriate future Federal role which would be used as the basis for U.S. EPA recommendations regarding program reauthorization.

The U.S. EPA study, recently completed, recommends several items which are key to an effective Title II reauthorization: 1) several years of **stable and substantial Federal financial assistance**; 2) a **multiple year transition** period from the current grants program to a program of alternative financing; and 3) **State flexibility** in use of allotted funds during transition and in the nature of the financial assistance provided.

The above points are recognized by the Association membership as critical elements for program reauthorization. The Association position calls for a reauthorization at the current level of funding and suggests the need for a statement of Congressional intent to revisit the program and move toward completion in the 1990's. This position is consistent with the wording and intent of the position adopted in February by the National Governors' Association, which recognizes the current constraints on the Federal budget.

At the February 19, 1985, **ASIWPCA Alternative Financing Workshop**, States shared their experiences with State Revolving Funds. From those discussions, some key considerations were apparent:

1. It is not reasonable to expect an SRF to be implemented in less than three full years, because of the State legislative and regulatory review process.
2. There will continue to be some "hardship case" communities which do not have the financial capability to construct needed facilities unless their loan is supplemented with some grant assistance.
3. The ability to advance funds for planning and design is very important, especially for smaller communities.
4. Local governments in some States have already foregone the promise of future grants for the availability of immediate loans. Therefore, in at least those instances, the SRF was a more effective water pollution control funding mechanism.

While the Administration is promoting, in their Bill H.R.2090, a total phase-out of this program within a four year period, eliminating new starts and all existing set-asides, the States must disagree with this approach. To summarize ASIWPCA's position, it is important for Congress to:

- reauthorize at **least $2.4 billion** annually;
- continue **Federal fiscal presence**;
- provide **immediate availability** of FY1986 State allotments for alternative financing;
- place **no limits on new starts** (funds must be available to both on-going and new projects).
- **provide for an evaluation**, near the end of the five-year authorization period, to examine
  - the future Federal role;
  - achievements of innovative funding methods; and
  - the adequacy of funding for long-term financial assistance programs.

In addition to the above, the States agreed that:

- there should be **reduced Federal requirements** associated with an alternative financing mechanism; and
- the **continuation of grants** after the recommended five-year reauthorization period should not be precluded from consideration.

To help address these last two points, it is suggested that the national legislation clarify that, although the SRF should be dedicated to water pollution control purposes, the funds should cease to have a Federal identity after their first-round use, and be available to fund all needs listed in Section 216 of the Act.

Section 208 - (Nonpoint Sources)

Nonpoint source pollution (NPS) is a significant portion of the total water pollution problem in the United States. The major source of nonpoint pollution includes urban, agriculture, construction, mining, and silviculture. **The degree of the problem and the priority of correcting nonpoint source water quality problems varies from State to State**. Therefore, the primary responsibility for nonpoint pollution control should remain at the State level. Most States are underway in developing and implementing programs to comply with the Clean Water Act. Since the States have water quality management plans previously certified by U.S. EPA, funding and technical assistance should be provided by the Federal government to assist in the further implementation of these programs.

Many of the nation's waters are adversely impacted by nonpoint sources. **Substantial progress has been made** in the States to develop and implement nonpoint source and groundwater programs, but much remains to be done. While States should negotiate work plans with the U.S. EPA, **no one set of deadlines or requirements can apply to all categories or sources**. Federal regulation of nonpoint sources will not increase abatement levels.

Because of the complexity of nonpoint source controls, water quality **results will not be achieved overnight**. The necessary improvements will take time to put into place and then evaluate. Constant surveillance and maintenance is needed to insure that the problem does not revert back to the original state.

The **ASIWPCA** membership recommends that:

1. States have **flexibility** to develop and implement nonpoint source programs (regulatory or voluntary) based on their priority nonpoint source water quality problems.

2. A **modest Federal commitment** in the range of the Senate Bill 53 and House Bill 8 ($70 million - $150 million) annually for matching grants should be provided to assist States in implementing their nonpoint abatement projects.

3. **States should be held accountable** for controlling nonpoint source pollution and achieving the goals of the Act.

4. U.S. EPA should **continue research** on effective Best Management Practices (BMPs), provide technical assistance, and conduct general oversight.

5. The national **nonpoint source program should be an integral part of existing programs** under Sections 106 and 303(e).

As a part of our report, **America's Clean Water**, we asked the States to be specific in reporting on severity and geographic extent of nonpoint sources of pollution within their State:

NONPOINT SOURCE POLLUTION

The results from the 45 States reporting on Severity and Geographic Extent were:

TYPE OF SOURCE	SEVERITY			GEOGRAPHIC EXTENT	
	Severe	Moderate	Minor	Widespread	Localized
Agricultural	16*	20	8	29	12
Urban	11	20	12	8	35
Mining	15	10	13	2	36
Land Disposal	12	11	17	5	35
Construction	6	23	14	7	34
Dams and Channels	7	18	14	5	33
Forests	4	7	21	6	27
Saltwater Intrusion	2	9	10	1	21

* Numbers refer to States

Based on this proven track record of success in portraying State water quality data in a succinct and effective manner, U.S. EPA asked the **ASIWPCA** to enter into a cooperative agreement project to document the status of nonpoint source programs in the 50 States.

From this project, which will be completed in September of 1985, we will assess and report on:

- the priority of water quality problems caused by nonpoint sources of pollution,

- the status of nonpoint source water quality programs in the States, using valid and consistent data,
- accomplishments in nonpoint source pollution abatement in improving water quality,
- transfer of technology to the States about programs other States have found effective in evaluating impacts and improving water quality through controlling nonpoint sources of pollution, and
- recommended future directions and possible financial sources.

III. TITLE III

Section 301 - (Toxic Pollutants)

The Clean Water Act has a sound conceptual framework for addressing toxic pollutants. Future **permits or reissued permits should require toxic monitoring**, as appropriate where toxicity is anticipated. Toxic monitoring should include the use of bioassays and biomonitoring as appropriate to supplement chemical and physical data.

State Water Quality Standards may include biological, narrative or specific numerical criteria for toxic pollutants. The Clean Water Act should not require that States develop specific numerical criteria for toxic pollutants.

Section 307 - (Pretreatment)

The national pretreatment control program should be managed to ensure adequate protection of the publicly owned treatment works and the environment. The Act should provide further implementation of future pretreatment programs and national categorical standards in those instances where alternative local programs have not already been provided and approved. If an alternative local program has already been provided and approved by the State and/or U.S. EPA, the NPDES program should be authorized to allow the local pretreatment program to continue where it is demonstrated no water quality problems exist.

Section 309 - (Civil Penalties)

The Clean Water Act should not be amended to require States to have civil penalties identical to any that are authorized for U.S. EPA. Such changes to the Act will result in great disruption to ongoing State programs.

When a State has proceeded with an enforcement action relating to a violation with respect to which the Administrator is authorized to assess a civil penalty, the **Administrator should not be authorized** to take any action involving a case where the State demonstrates that the State imposed penalty is appropriate.

IV. TITLE IV

Section 402 - (NPDES Permit Program)

This Section should be revised to allow partial assumption by States of the NPDES program pursuant to joint Federal/State agreements. In addition, it is essential that the Act be amended to provide for the issuance of **NPDES permits up to ten years**, provided flexibility is maintained to re-open a permit for good cause. The States support re-opening the permits to include promulgated effluent limitations or to address violation of water quality standards. In most States, seventy-five percent of the permits are for relatively small dischargers with non-toxic wastewaters and ten year permits would enable the States to spend more time developing and re-opening the permits for major sources.

V. TITLE V

Section 502 - (Stormwater Runoff as a Point Source)

Recent court decisions mandating NPDES permits for stormwater runoff from all parking lots, etc., will result in massive paperwork and unjustified personnel time on the part of property owners and government agencies with minimal positive environmental impact. Congress is urged to **clarify the definition of a point source** so that U.S. EPA and/or the State would be required to **issue NPDES permits only where** it is determined by the permitting agency that the stormwater runoff **would interfere with the designated use** of the receiving water body or the runoff is associated with permitted industrial facilities.

SUMMARY

The positions outlined in this testimony have been developed by the State Directors of the Clean Water Program.

Based on their professional expertise and their many years of experience in developing effective Clean Water programs, **ASIWPCA** members are convinced that the changes outlined above will serve to enhance existing law.

Congress is urged to move expeditiously to reauthorize the Clean Water Act and to institute changes that will assist the States in administering and managing effective programs. **ASIWPCA** members and staff are available at any time to work with Congress to effect such reauthorization.

Mr. Chairman, I have kept our remarks brief because of 1) your familiarity with **ASIWPCA** and its efforts, and 2) your in-depth knowledge of State environmental programs. We extend our appreciation to the Congress and to this Subcommittee for their diligence in the development of effective, implementable environmental legislation. **ASIWPCA** and its State members thank you for this opportunity to come before you to discuss these most important issues.

ASIWPCA

ASSOCIATION OF STATE AND INTERSTATE WATER POLLUTION CONTROL ADMINISTRATORS

REAUTHORIZATION OF THE CLEAN WATER ACT

The Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) is the national non-partisan organization of State officials who manage the States' Clean Water Programs. The fifty States, six interstate agencies, three territories, and the District of Columbia are represented.

During the Association's Mid-Winter Meeting in Washington, D.C., conducted February 19-21, 1985, the members urged reauthorization of the Clean Water Act and recommended the establishment of **capitalization grants** to the States for use in the State Water Pollution Control Revolving funds. House Bill 8 provides for implementation of this concept.

ASIWPCA **concurs with and appreciates the concept of the revolving fund in H.R.8 and recommends establishment of incentives to the States to participate by:**

- deleting requirement of State match;
- clarifying that funds returned as repayment from the local governmental systems are **available to address needs** identified in Section 216 of the Act;
- by authorizing the States to **use the funds** made available **under Section 207** of the Act in State Revolving Funds.

Other changes ASIWPCA recommends **related to construction grants are**: **Modify H.R.8, Section 14,** to assure U.S. EPA dictated changes to a project will then exempt the certification required by local governments; **change wording in Section 15(a)(1)** to clarify that the requirements related to Section 208 of the Clean Water Act applies only to any portion of the plan under the applicant's control; **and delete Section 17(f)** of H.R.8 which requires U.S. EPA conducted audits to be funded from Section 207 of the Act.

In addition, ASIWPCA **urges enactment of H.R.8 with the following modifications**:

- **Amend Section 5** to require the States, not U.S. EPA, to identify the **navigable waters** with toxic pollutants causing water quality standards violations and development of corrective action.
- **Amend Section 23** to authorize continuation of **existing pretreatment** programs demonstrated to effectively control toxics.
- And **Amend Section 28** to require permits **for stormwater runoff** only when determined as needed to protect designated water uses or when associated with permitted industrial facilities.

In summary, ASIWPCA recommends the few changes outlined above in H.R.8 and supports prompt reauthorization with a request that you include in the final bill:

- **Continuation of 106 State** management grants.
- A meaningful transitioning of the construction grant program to a **perpetual loan program** concept with authorization for use of funds provided under Section 207.
- The States' recommendation of partial NPDES Permit Program approval and a **10-year NPDES Permit with requirements for re-opening** when applicable effluent limitations are promulgated.
- A meaningful program for non-point source pollution.

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Testimony of

F. Thomas Westcott

for

The Associated General Contractors of America

Presented to the

Water Resources Subcommittee

Committee on Public Works and Transportation

United States House of Representatives

on the Topic of

H. R. 8, to Amend the Clean Water Act

April 25, 1985

AGC is:

- More than 32,000 firms including 8,400 of America's leading general contracting firms responsible for the employment of 3,400,000-plus employees;
- 110 chapters nationwide;
- More than 80% of America's contract construction of commercial buildings, highways, industrial and municipal-utilities facilities;
- Over $100 billion of construction volume annually.

Thank you, Mr. Chairman.

My name is F. Thomas Westcott. I am President of the Westcott Construction Corporation, North Attleboro, Massachusetts. I am here today representing the Associated General Contractors of America. AGC represents more than 32,000 firms, including 8,400 of America's leading general contracting companies which are responsible for the employment of more than 3,400,000 individuals. These member contractors perform more than 80 percent of America's contract construction of commercial buildings, highways, industrial and municipal-utilities facilities.

I appreciate the opportunity to testify before this committee on the important topic of the Clean Water Act and the reauthorization of the EPA Construction Grants Program, as outlined in House Bill 8.

Congress first recognized the need to improve the quality of the nation's waters in 1956 and made a major advance with legislation in 1972. Since that time, over $40 billion in Federal funds have been provided to municipalities for the construction of publicly owned treatment facilities. This has resulted in a noticeable improvement in water quality, with over sixty percent of the nation's rivers and streams now meeting clean water goals.

Although great strides have been made, the job is not yet complete. EPA has reported, as a result of its Needs Survey, that over $100 billion will be needed through the year 2000 to construct the wastewater treatment facilities needed to meet clean water goals. Projects eligible for Federal funding total over $35 billion. Past levels of funding have not been adequate, and certainly, recent funding levels, at $2.4 billion annually, are even less than adequate to do the job. It is clear that funding must be increased, at all levels, federal, state and local, to meet these needs.

There is an urgent need to address the rebuilding of our nation's infrastructure. Many local governments just do not have the basic infrastructure, such as water and sewer systems, needed to serve existing industry, or to allow for the expansion of existing industries, let alone the possibility of attracting new industry.

Failure to meet basic infrastructure needs frustrates not only the achievement of clean water goals, thus threatening the safety and health of citizens, but also severely threatens economic growth. No clearer example exists than the recent Boston situation. The inadequacies of wastewater treatment facilities in the Boston area and the resulting pollution of Boston Harbor are well-known.

What is less well-known is the enormous volume of economic activity dependent on Boston's outmoded and inadequate wastewater treatment system. In December of 1984 most construction in Boston was briefly brought to a halt by a retroactive 18-month moratorium on sewer hook-ups. AGC has analyzed building permit data in the 43 cities and towns represented by the Boston Metropolitan District Commission which were impacted by the proposed moratorium, and found that economic activity of almost $3.2 billion was generated by the $1.1 billion value of building permits filed during that 18-month period. In addition, 24,913 construction jobs, 24,700 offsite jobs, and 42,353 jobs induced by the ripple effect on the economy for a total of 91,965 jobs were the direct result of construction in Boston during this timeframe. Basic infrastructure needs must be met or severe economic dislocations will occur. The unalterable fact is that public works investments must be increased at all levels of government.

Based on the demonstrated needs of over $100 billion, it is clear that there is need for a continued Federal role to assure the achievement of clean water goals and continued economic revitalization. AGC supports the level of funding called for by H.R. 8, - $3.4 billion annually for Fiscal Years 1986 through 1988. AGC believes as well, that similar levels of funding, subsequent to 1988, be eventually provided for, to honor the commitment made when the 1981 amendments were enacted. This would also help to ensure the achievement of water quality goals.

AGC also supports the provision in the bill which provides for State Water Pollution Control Revolving Funds. The State Revolving Fund would provide states with flexibility to use those funds for needed wastewater treatment projects by making low interest loans, by guaranteeing local obligations and by improving credit market access.

AGC recommends that the intent of the 1981 amendments be expanded to delegate total management of the Construction Grants

Program to the States, with EPA continuing management oversight, enforcement and auditing functions. States should be allowed to establish project priorities, consistent with water quality goals, and should be allowed to use funds for all construction costs of wastewater treatment facilities including full funding for collector systems.

In order to meet clean water goals and deadlines, Congress should also reemphasize strong Federal enforcement of effluent discharge permit requirements, consistent with the EPA Municipal Enforcement policy calling for compliance in 1988. This policy, in implementation of statutory requirements, provides that all wastewater discharges into receiving waters must meet applicable water quality standards and directs municipalities to provide the facilities needed to adequately meet the standards. Effective enforcement of this policy will provide the needed impetus to municipalities to make the necessary capital expenditures. Our nation can no longer afford to have these necessary capital expenditures relegated to some secondary role.

Mr. Chairman, AGC commends your initiative in introducing this legislation and heartily endorses its objectives. The legislation will continue the effort needed to achieve water quality and will support efforts to meet the basic infrastructure needs of the Nation.

AGC, however, has one serious concern regarding H.R. 8. Section 59 of H.R. 8, would amend the Clean Water Act by adding a new section, 203(f), to provide for "turnkey projects". States would be allowed to use up to twenty percent of their construction grants allotment for grants up to $8 million for turnkey projects, which entails using the design-build method of procurement.

AGC opposes the use of design-build contracts by public bodies as a method for procuring construction services. Although this contracting method has been used successfully in the private construction market for years, it is inappropriate for use by public bodies. The primary reason for this opposition is because the design-build contracting method undermines the integrity of the competitive bid system. Federal, state and local governments are, for the most part, required to award contracts for construction services to the lowest responsive, responsible bid. Time has shown that this system has been beneficial because it assures that the highest quality product is provided at the lowest possible price. At the same time it provides all bidders with an equal opportunity at being awarded the contract. The low bidder's efficiency is rewarded and measured by an objective test - the lowest responsible bid.

The design-build contracting method introduces a subjective element into the award process. Unlike the competitive bid system where all bidders bid on the same set of plans, each design-build firm submits its own proposal and concept of the government's basic outline for the project. The public agency must then judge between differing proposals for the same project. AGC believes the subjective judgments that must be made between the different proposals could potentially corrupt the system.

The design-build contracting method also leads to reduced competition. There are only a limited number of construction firms that have in-house design capabilities or design firms which have construction capabilities. Those that have these dual capabilities are, for the most part, very large firms. By making use of design-build contracts, government bodies will limit the number of firms able to compete for them. Most small construction firms would be excluded from this competition. This would not serve the public's interest.

In the interest of assuring taxpayers that their tax monies are being expended in the most economic and efficient manner possible, AGC urges the deletion of Section 203(f) from the bill and recommends speedy enactment of the revised legislation.

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National Environmental Development Association · 605 Fourteenth Street NW. Washington DC 20005 · 202 638-1230

J. WILLIAM HAUN, Project Chairman

STATEMENT

of

J. William Haun

Vice President, Engineering Policy

General Mills Inc.

on behalf of the

National Environmental Development Association's

Clean Water Project

before the

Water Resources Subcommittee

of the

Public Works and Transportation Committee

House of Representatives

April 25, 1985

Good morning, Mr. Chairman and Members of the Subcommittee. I am J. William Haun, Vice President of Engineering Policy for General Mills Incorporated. I am here today speaking on behalf of the Clean Water Project of the National Environmental Development Association, of which I am the Chairman.

Seated with me today is Jim Sheets, the Research Director of the Laborers' International Union of North America. Seated directly behind me is Jeff Zimmerman, Director of Regulation and Compliance and Counsel for Environment, Health and Safety for Occidental Petroleum Corporation and Chairman of the NEDA/Water Technical Committee.

The NEDA Clean Water Project is a coalition of industry, the Building and Construction Trade Unions of the AFL-CIO and agriculture which seeks to bring balance to policy decisions relating to the Clean Water Act. Our project's members believe it is possible to have both a healthy and clean environment and a strong economy.

We urge the Subcommittee to amend the Clean Water Act this year in order to...

1. ...achieve effective water pollution control;
2. ...accelerate the process of cleaning up the nation's waters; and
3. ...reduce the tangle of red tape which interferes with the above goals and results in undue cost to the public.

We are here to offer recommendations which will strengthen the Act through clarification and simplification.

Today, Jim Sheets will address our construction grant concerns on behalf of the Building and Construction Trades Department (AFL-CIO) and I will present our project's views on some of the key provisions in HR 8 which affect our membership including: NPDES permit term and reopener, compliance deadlines, criminal penalties, stormwater runoff, general permit and permit by rule and local pretreatment.

PERMIT LIFE

There are approximately 64,000 NPDES permits for point source discharges under the Clean Water Act, 10,500 of which are issued by EPA and 53,000 of which are issued by the states, subject to EPA review. The need for renewal of these permits every five years, or even more frequently in many instances, subjects EPA and the state agencies to substantial administrative burdens. As of March 15, 1985, 25,000 permits (40 percent) are pending for renewal.

NEDA/Water and many other organizations, including the Administration, recognize that it is important to provide relief to unclog the regulatory process by recommending an increase in the maximum permit term from 5 to 10 years. HR 8 recognizes this need by providing for a 10-year permit term. This provision would provide increased stability in compliance planning and would help insure that EPA utilizes its permitting resources wisely.

An important issue which needs to be addressed is when and under what circumstances these permits may be reopened to incorporate changes in regulations. HR 8 would require that permits must be promptly modified to incorporate new or revised toxic pollutant effluent limitations or water quality standards.

While we agree that permits should be modified to incorporate new controls on toxic pollutants and their effects on receiving streams, we believe that the agency administering the NPDES program is in the best position to set its priorities for managing the permits under its control. We therefore suggest that this provision of HR 8 should be changed to discretionary rather than mandatory language. The current mandatory language could provide a basis for a judicially-imposed interruption of an agency's statewide efforts to achieve maximum environmental benefits from its limited resources.

The motive for mandatory reopeners is the fear that permits will automatically be issued for a period of 10 years and that there will be no way that a permitting authority will be able to incorporate new requirements if they later prove to be needed. We believe this fear is based on a number of misperceptions.

The first misperception is that permits automatically will be granted for a 10-year period. This is not the case. It is important to understand that this provision would not require permits to have 10 year terms. It merely authorizes permit writers to issue permits for up to 10-years. Permit writers retain the authority -- as they have now -- to issue shorter-term permits. Many dischargers today have permits with a life span shorter than 5 years. Why? Because the permit writer believes that sometime in the near future new requirements will be developed that he will want to incorporate into the permit.

The second misperception is that permit writers are not able to reopen permits under existing law. This is not the case. Existing EPA regulations already allow the reopening of permits in a number of circumstances. In particular, these regulations provide for permit modifications to incorporate new or revised limitations on toxic pollutants where these limits are more stringent than the existing permit requirements. Permit writers in many states also have exercised discretionary authority to require permit reopening in a broad range of circumstances.

The third misperception is that permit authorities simply won't use their reopening authorities. This will not be and has not been the case. Any allegations in support of this misperception we believe have been conclusively refuted by the state administrators who run the permit programs.

Consequently, it is probable that permits can be set for a 10-year period with a wide variety of reopener provisions if the situation warrants and the permit writer determines that such provisions are in the best interest of the environment. Alternatively, if the permit writer and the permittee do not want to incorporate the reopener in the permit, the life of the permit can always be shortened.

COMPLIANCE DEADLINES

It is generally understood that there is a serious problem in complying with BAT, BCT and BPT deadlines as set forth in the Act. I do not need to review the history today. Simply stated, industry can't comply immediately with requirements which have not been established or for which it has not had a reasonable time to install pollution control technology to meet limitations which have only recently been promulgated.

We believe that dischargers should be allowed a uniform period of time to comply with BAT or BCT requirements after the EPA issues the applicable effluent guideline. If no guideline is available, the establishment of effluent limitations in an issued BPJ permit would also suffice to begin the compliance period.

Our experience shows that the 42 months proposed in HR 8 is about the time required to design, construct and start up those often complex new waste water treatment systems.

We support the provisions in HR 8 as a reasonable approach to this effluent problem.

CRIMINAL PENALTIES

Regarding the "Criminal Penalties" section of HR 8, the NEDA/Water Project would like to commend the legislation for including an affirmative defense clause for compliance with all applicable federal, state, and local requirements with respect to introduction of pollutants into a sewer or publicly owned treatment works.

These requirements are designed specifically to protect operations of the sewer system and its treatment works. In all cases that we know about, the local sewer ordinances incorporate severe sanctions, including suspension of service, if the indirect discharger is believed to be responsible for damage to or failure of the POTW. But where the indirect discharger is meeting all the requirements regulating his use of the sewer system, that discharger should not be subject to prosecution as a matter of simple fundamental fairness.

LOCALLY CONTROLLED PRETREATMENT PROGRAMS

An issue that received extensive discussion in the last congress related to a legislative amendment that would have allowed publicly owned treatment works who have "gone the extra mile" in developing pollution control programs to control their own pretreatment program.

In some cases, the pretreatment of a discharger's waste before it arrives at the publicly owned treatment works (POTW) makes sense. In other cases, where the POTW can safely treat such wastes, it does not. As interpreted by EPA, the Act does not have the flexibility to acknowledge the difference. The result is redundant treatment of wastes at great and needless cost to industry and the public or not enough treatment.

We believe there are local POTWs that have developed treatment and pretreatment programs that meet federal standards and that those POTWs should be recognized for their accomplishments. Local treatment works should be allowed to run their own pretreatment program as long as protections are included that will ensure local programs achieve water quality improvements equal to those achieved under the federal program.

We support an amendment that would provide qualified POTWs with the flexibility to implement their own pretreatment programs, while keeping the federal program in place for those POTWs which do not qualify to develop and implement their own program. We think local POTWs can do just as good a job as the federal government -- if not better -- in developing and carrying out a pretreatment program.

The amendment we support has been tightly constructed in order to ensure that local POTWs granted the authority to run their own programs do so in an environmentally responsible fashion that will meet the federal categorical guidelines. A specific area where the amendment goes beyond present law is the requirement for in-stream monitoring including, where necessary, biomonitoring. This requirement will help provide the data that will prove the POTW's locally controlled program is meeting its goals.

We believe there are a number of reasons to support the Alternative Local Pretreatment Authority Program.

- Many publicly owned treatment works across the country have applied strict local pretreatment programs to industrial users. These POTWs who have "done the job" called for in the Clean Water Act should get credit for their accomplishments. This amendment would allow these POTWs to continue their local programs in lieu of applying the federal categorical pretreatment program.

- Because they are based on industry categories on a nationwide basis, the federal categorical pretreatment standards ignore the good local pretreatment job done by many POTWs. Applying the federal categorical standards to these POTWs will force them to re-design and re-balance their existing systems which are already meeting or exceeding the levels of overall treatment on which the federal standards are premised. The result of applying the federal standards to these plants will be confusion, added expense to the POTW, and likely delay in pollution control.

- States and local governments are closest to the daily operations of the POTWs they own and regulate. A POTW cannot be run effectively by "remote control" from EPA in Washington. Where an existing POTW system is as good as if not better than the federal categorical pretreatment program, there is no reason to, and every reason not to, shift control from the local to the federal level.

- This alternative program is carefully limited to those POTWs which can meet rigorous criteria concerning the capabilities of their systems and their local pretreatment programs.

- Technology-based effluent limits on toxics would be included in the POTW's permit. These limits must be as strict as the most stringent direct discharge industrial limits for each toxic pollutant covered by the alternative local programs.

- Application to implement a local pretreatment program alternative to the federal categorical standards is on the time of the POTW and its users. There is no delay in the federal categorical standards, only in their application to a POTW's users during the time an application is being processed. If an application is denied, none of the processing time is added to the compliance dates for the federal standards.

- A mandatory monitoring program is included as a condition to local program authority. Results from this monitoring will be used to develop additional toxic pollutant effluent limitations as needed to protect the quality of the waters into which the POTW discharges.
- Enforcement under the demonstration program is the same as present federal enforcement authority for pretreatment programs. Additionally, if a POTW with local program authority cannot NEDA/Water Project quickly correct problems that may arise, its authority to implement the local alternative is revoked and its industrial users must meet federal categorical standards.

We are pleased that HR 8 includes a provision for study of alternative regulatory strategies for pretreatment but we believe that many localities already have such systems in place and operating. We do not believe that these systems should have to rearrange and rebalance their systems simply because the federal regulatory program takes a different approach to achieving the same or lesser environmental benefits.

STORMWATER RUNOFF DISCHARGES

Section 27(b) of HR 8 would exempt discharges of stormwater runoff from mining operations or oil or gas exploration, production, processing, or treatment operations from permitting requirements so long as these discharges are not contaminated with process wastes, overburden, raw materials, toxic pollutants above natural background levels, spilled product, hazardous substances, or oil or grease. It would also require monitoring of the quality of water in such flows and at least annual reporting to EPA on the results of such monitoring.

We support the concept incorporated in this provision but would suggest a restructuring of the language to focus on exempting diversions of stormwater around areas disturbed by mining or oil or gas operations by conveyances and systems designed to prevent such stormwater from contacting these disturbed areas.

At a minimum, we suggest the insertion of the phrase "in excess of reportable quantities" after "hazardous substances" and after "oil or grease," and revision of the monitoring language to recognize the practical limitations on sampling of stormwater runoff from the operations to which this provision would apply.

The addition of the phrase "in excess of reportable quantities" is a recognition that regulatory programs under Section 311 of the Clean Water Act and Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) have determined that these quantities are the point at which these pollutants begin to be of environmental concern. This insertion would coordinate this provision with these existing regulatory mechanisms.

Finally, concerning the monitoring provisions, there are very real practical limitations to the ability to monitor stormwater runoff discharges. Precipitation events are intermittent and of limited duration, especially in most areas where mining and oil and gas operations are located. Unless samples are taken during or shortly after such events, there may be nothing to sample or the samples may bear little relationship to pollutants present in the stormwater runoff.

GENERAL PERMITS AND PERMITS BY RULE

Two very important mechanisms that have been used by EPA in the past to address certain classes of discharges are the general permit and the permit by rule. The Administration has included language to confirm its general permitting authority in its current proposals for amendments to this Act. The NEDA Water Project supports the Administration's general permit proposal and urges its inclusion in HR 8. A further expansion of this suggestion to include the permit by rule concept is desirable. Together these two mechanisms could provide significant tools to permitting agencies to handle less significant discharges with such tools and concentrate their resources on other areas of greater environmental concern.

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National Environmental Development Association · 605 Fourteenth Street NW Washington DC 20005 · 202 638 1230

J. WILLIAM HAUN, Project Chairman

STATEMENT

James R. Sheets

Research Director

Laborers' International Union of North America

on behalf of the

Building and Construction Trades Department, AFL-CIO

before

Water Resources Subcommittee

of the

Public Works and Transportation Committee

House of Representatives

April 25, 1985

Mr. Chairman, my name is James R. Sheets, I am the Research Director of the Laborers' International Union of North America and I am testifying today on behalf of the Building and Construction Trades Department (AFL-CIO) to support the provision now included in HR 8 relating to increased funding levels for the construction grant program. Mr. Chairman, without doubt, a controversial issue that will be considered by this Subcommittee, the administration and the public is the issue of the level of financial support for the construction of badly needed wastewater treatment facilities.

This committee has already heard from experts in the field regarding the environmental and financial need for publicly owned treatment works.

The largest single point source of water pollution in this country is municipal treatment works and yet there are even today some areas which do not have wastewater treatment facilities. EPA's latest NEEDS SURVEY suggest that there will be $108.9 billion worth of needed construction by the year 2,000. This figure represents a potential future federal investment of approximately $34.4 bilion.

Mr. Chairman, you, Chairman Howard and other members of the Committee are to be commended for your commitments to the construction grant program. We are gratified that HR 8 recognizes the inadequacy of the present $2.4 billion per year funding level for the construction grant program.

Clearly, the inability of municipalities to meet their pollution control obligations due to potential decreases in federal construction grant funding creates serious problems, not only in regard to the environment but also with regard to an area's economic health. We are aware of serious problems that are confronting both homes and businesses in some areas of the country because of the inability to build new facilities or add to existing facilities due to a lack of sewer capacity. If a production facility is prohibited from locating in a particular site or expanding an existing facility because of inadequate municipal sewage treatment, the municipality will suffer economic hardship and could lose jobs and tax revenues. Eighty-one thousand jobs are tied to the construction of POTWs and construction unemployment continues to hover around 18%.

We are strongly supportive of the federal funding provisions in HR 8 but would consider at an appropriate time alternative funding plans. We do have doubts regarding some funding alternatives that local communities will be able to handle the cost of the program. In addition, we fear that alternative funding schemes may take years to develop and, in some cases, legislation to implement.

We applaud the concept of a revolving loan program that can work in concert with the present construction grant program. Only adequate funding and legislative and program reforms will assure that dollars are spent productively to control the nation's water pollution problem.

Industry and many small businesses depend on the construction grant program. They need a safe and economical way in which to treat their waste. Due to location, capital or other requirements many of these areas have no alternative but to use and depend on POTWs.

Therefore, it is our belief that a construction grant and revolving loan program working in concert over a period of time can provide badly needed funds to build the POTW's that our country's infrastructure will require if the economy is to continue to grow while maintaining our continued commitment to a clean and healthy environment.

AFTERNOON SESSION 1:05 P.M.

The subcommittee met, pursuant to recess, at 1:05 p.m., in room 2167, Rayburn House Office Building, Hon. Robert A. Roe (chairman of the subcommittee) presiding.

Mr. ROE. The meeting will come to order. We now reconvene this afternoon's session, and our first witness up today is Ms. Fran Dubrowski, Senior Attorney for the Natural Resources Defense Council. I want to welcome our distinguished witness. Your statement will appear in full in the record, so if you would be kind enough to summarize, that would give us more time to be able to exchange views, Ms. Dubrowski.

TESTIMONY OF FRANCES DUBROWSKI, SENIOR ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Ms. DUBROWSKI. I'd be happy to summarize it, Mr. Chairman.

I want to thank the Chair and the committee for inviting me back to testify here today. I will summarize my testimony, but before I do so I want to touch briefly on a point which I neglected to mention in the prepared statement, and that is the very critical issue of enforcement.

The administration's bill, as you will recall, contains a provision for administrative civil penalties; that is, it would give EPA authority to assess a civil penalty without the need to go to court. But the price the administration would extract for this new authority is too high. The administration's bill would allow EPA to assess such a penalty without any notice to anyone other than the polluter, without a right for anyone to participate in a hearing other than the polluter, and without a right of judicial review by anyone other than the polluter. The very pendency of the administrative civil penalty action would preclude citizens from filing their own suit for civil penalties, or from filing for an injunction or a court-ordered cleanup schedule, even if EPA were not asking for cleanup in its administrative proceeding.

In other words, the administration's bill would allow the Government to take a case that was worth several hundred thousand dollars in fines, settle it for a paltry few dollars, and citizens would have no ability to obtain a remedy. That represents a very dramatic departure from the way the National Clean Water Program has always operated—indeed, the law reflects a very strong commitment to citizen participation in all aspects of the decisionmaking process, including the enforcement process.

There is no need for a provision that so drastically curtails citizen enforcement. Citizen suits are a proven enforcement tool. They have been studied by EPA's independent consultants, who concluded that citizen suits are operating the way Congress intended: to provide both a goad and an alternative to Government enforcement. They have achieved significant compliance gains, often greater gains than previous Government enforcement actions. We would therefore urge the committee to look very skeptically at any proposals to place obstacles in the path of citizen suits or to exclude citizens from the enforcement process.

Turning to my prepared testimony, I'd like to start by emphasizing that since this committee last considered the Clean Water Act, there have been several significant developments. Prime among them is a close 5-to-4 decision by the U.S. Supreme Court. That decision would allow EPA to grant variances from otherwise uniform, national pretreatment standards. Although the Court's decision extends only to pretreatment, it would, by analogy, also extend to BAT—that is, to the direct discharge program.

There is no statutory authority for these variances. EPA, nonetheless, created them by rule to give variances to sources which claim to be fundamentally different, in terms of the statutory factors, from the sources EPA considered during the rulemaking.

In 1977, Congress set out to define very specifically when and under what conditions sources could obtain variances. Congress said, in section 301(l) of the law, "The Administrator may not modify the requirements of this Section," that is, the national standards for toxics.

EPA argued to the Court that the statutory prohibition applied only to the variances Congress had created, not to those EPA would create. A majority of the Court accepted this argument because they said section 301(l) lacked sufficient clarity to preclude EPA's interpretation of the law. The dissent, by Justices Marshall, O'Connor, Blackmun, and Stevens, disagreed.

However one reads section 301(l), the important point is that the Court did not decide as a matter of policy whether "FDF" or "fundamentally different factors" variances are a good idea. We submit that they are a bad idea from a policy perspective. They lead to weaker standards, less technological innovation, inordinate delays, and a waste of EPA resources. I'd like to briefly consider each point in turn.

First, FDF variances lead to weaker standards. They consider each source in isolation from the rest of an industrial category. A source may be different; for example, it may have a physical process difference from others in the category, but that does not mean that other similarly situated sources aren't doing a better job of controlling pollutants. Because the variance process ignores this possibility, it leads to weaker standards and less technological innovation.

This committee has seen dramatic evidence of how the FDF variance works. As you will recall, General Motors last year filed 27 variance applications for its Integrated Electroplating Facilities. When the lower court struck down the variance, 19 of those plants, using a variety of pollution control devices, came into compliance within 9 months; the remaining 8 plants signed up to a compliance schedule. Had GM been able to get a variance, those plants would have lacked the incentive to come into compliance with the law as quickly as they did.

It's also important to emphasize the critical question of timing. The FDF variance leads to inordinate delays. An application would, under the best of circumstances, take a year to resolve because of the many steps in the process. But, in practice, it takes considerably longer. There have been 58 variance applications filed from BPT standards for direct dischargers; only 4 were granted, 23 remain pending. Roughly 40 percent of the pending applications were filed before 1980; in fact, applications filed in 1976 and 1977 still have not been decided. Nothing could be further from the scheme Congress had in mind.

Finally, there is the question of whether or not it is efficient to go about deciding whether sources are the same or different from others in a variance proceeding. We submit that it is more efficient to make that decision in the rulemaking when the data base is fresh before the decisionmakers. Doing it after the fact, in the variance proceeding, requires State and regional EPA enforcement personnel to duplicate the task done by EPA's rulemakers. It is simply inefficient.

EPA says it needs this variance for two reasons: "either because we don't get the information we need in a rulemaking proceeding, or because we get it but don't consider it." Neither argument withstands analysis. There is no sound public policy reason for allowing sources to withhold information during the rulemaking, and then rewarding them with a second bite at the apple after the standard has been issued. And as far as information which EPA gets and doesn't consider, that's simply a figleaf for inadequate agency rulemaking. EPA should consider all information it gets during the rulemaking because if it doesn't, its standards are vulnerable to a court challenge.

In other words, EPA does not need this variance. EPA has been able to issue new source standards and new source pretreatment standards without any variance procedure. In addition, after the lower court struck down the FDF variance, EPA issued six final and four proposed pretreatment standards—all on schedule and all without an FDF variance.

We therefore urge the committee to eliminate the FDF variance for toxics.

My prepared testimony also touches on two other points, which I will briefly summarize.

One is the section 301(g) variance. The administration's bill contains a provision to curtail the availability of these variances because EPA does not have the resources to decide applications in a timely fashion. We support this aspect of the administration's bill.

The second point I want to touch on is the local opt-out, or alternative local pretreatment program concept. We are pleased to see that H.R. 8 does not contain a local opt-out provision. We have previously testified to this committee that such a provision is unworkable, would consume many agency resources, and—because we lack adequate water quality and sludge data—may lead to decisions which are unsound from an environmental perspective.

Administrator Ruckelshaus was asked last year in his Senate testimony what he thought of the local opt-out idea. He said, "It is a nice idea but I am afraid it won't give us the same level of toxic control in the same amount of time."

Since his testimony, we have made dramatic strides in the pretreatment program. In fact, last year when we testified, only about 100 POTW's had approved pretreatment programs. Today that figure is well over 700—indeed, close to 800. In other words, of the 1,530 POTW's that must have an approved pretreatment program, over 50 percent now do. Many more are very close to obtaining

EPA's approval. It does not make sense to disrupt the program at this stage in its implementation with new rules for pretreatment.

Finally, a 17-member pretreatment task force has studied this program for over a year. The task force was comprised of representatives from industry, environmental organizations, States, cities, and EPA regions. The task force submitted a report which the Administrator only recently released. It is a 75-page report containing largely consensus recommendations for improving the pretreatment program. We believe that if EPA implements these recommendations, the program will work much more smoothly than it has in the past. So we urge the committee not to amend the pretreatment program by including a local opt-out or waiver provision.

Thank you, and I would be happy to answer any questions you may have.

Mr. ROE. I want to thank the gentlelady for her excellent presentation.

The gentleman from Minnesota.

Mr. STANGELAND. Thank you, Mr. Chairman. I, too, want to commend Ms. Dubrowski on her statement.

On page 2 you make the argument that in the enacting section 301(l) of the act, "with respect to toxic pollutants, there are no waivers or modifications," a point you assert was stressed in the 1977 act's legislative history. Isn't it true that the Supreme Court, in its recent decision, found, first, that the legislative history of the act did not show that Congress intended to forbid FDF waivers. Second, that granting FDF variances is consistent with the act's goals and operations? And third, quoting here that "the availability of FDF variances makes bearable the enormous burden faced by EPA in promulgating categories of sources and setting effluent limitations." Isn't that just what we have found out, with the Supreme Court ruling?

Ms. DUBROWSKI. The Supreme Court split 5 to 4 on each of those questions, so the majority found that the legislative history was ambiguous on the question of the prohibition.

I'm trying to recall what your other two points were.

Mr. STANGELAND. Well, the legislative history did not show that Congress intended to forbid FDF waivers, that was No. 1, and I guess you answered that by saying that Congress was ambiguous, which means that there wasn't an outright prohibition.

Ms. DUBROWSKI. The majority found Congress ambiguous; the minority found that the legislative history was quite clear. So the Court did split five to four on precisely that point.

Mr. STANGELAND. And that granting variances is consistent with the act's goals and operations?

Ms. DUBROWSKI. Again, the Court split 5 to 4 on that point.

Mr. STANGELAND. Well, let's go on.

On page 5, you refer to 27 FDF variance applications filed by General Motors. How many of those, if any at all, were granted by EPA?

Ms. DUBROWSKI. How many of those—excuse me?

Mr. STANGELAND. Were any of the 27 FDF variance applications filed by General Motors granted by EPA?

Ms. DUBROWSKI. No. EPA had not had very much time to act on GM's applications before the lower court struck down the variance.

While the variance had been struck down but before the Supreme Court reinstated it, General Motors either came into compliance with the standards, in the case of 19 plants, or signed up to compliance schedules in the case of the remaining 8 plants.

Mr. **Stangeland**. Well, if that's the case and none of the variances were approved, isn't it a non sequitur to argue that the availability of the opportunity to seek a legitimate variance degrades EPA's regulatory program?

Ms. **Dubrowski**. I don't believe it is a non sequitur merely because very few of these variances have ever been approved. In fact, out of about roughly 40 applications in the pretreatment context and 58 in the BPT context, only four have been approved. But the important point is that while the variance application is pending, sources are reluctant to spend the money to come into compliance; that is, they are reluctant to embark on a multimillion dollar pollution control program if they think that their standards might change. At the same time, EPA is reluctant to take enforcement action against those sources if it thinks the standards might change. So as a legal matter, those sources are still subject to the standards; but as a practical matter, there isn't much that goes on in the way of enforcement. It is the delay which takes place in the majority of cases—and the majority of applicants thus far have turned out not to qualify for the variance—that is our concern.

It is also important to emphasize that we have not yet seen the total universe of variance applications because not all of the standards have been issued. The organic chemicals regulation, due to be issued this year, is one for which there may well be many variance applicants, depending on how strict or how lenient the standard is when it's set.

Mr. **Stangeland**. So really, your major fear of allowing consideration of variances is not that it's going to degrade the program, but delay the program?

Ms. **Dubrowski**. It delays the program, and it also creates inequity between those sources who comply with the law and those sources who choose to wait out the variance process even though both types of sources are in the same industrial category and may well be competitors.

Mr. **Stangeland**. But don't they do that at their own jeopardy? They risk being in violation; they risk fines? They're taking a risk in delaying, in applying for that variance.

Ms. **Dubrowski**. They are taking a risk, true; but the enforcement process has not kept pace so that there is a real prospect of EPA enforcement while the variance application is pending. It is not the same risk as someone whose standards are defined, and who nevertheless chooses to violate the law.

Mr. **Stangeland**. Let's go on. Could you elaborate for the committee on the nature of the fundamentally different factor which the majority on the Supreme Court felt provided sufficient justification for a variance in the *CMA* v. *NRDC* case? Do you feel that these differences would have justified setting different standards as part of the rulemaking process? And if so, do you feel that a prospective analysis of the need for differing treatment might have resulted in any less effort by EPA than a retroactive review of the request?

Ms. DUBROWSKI. The Supreme Court considered the variance as part of the general framework for the pretreatment program. It did not consider any specific variance application, so it didn't focus on how any particular plant differs from any other plant.

We're not advocating that EPA not consider questions of plant differences; we think EPA should. What we are saying is that EPA already has another process for making that decision; that is process is subcategorization during the rulemaking. We think the latter process is adequate and works well. You don't need two processes for making what is essentially the same decision.

Mr. STANGELAND. Thank you, Mr. Chairman. I have more questions, but I would yield to some of the other Members at this time.

Mr. ROE. The gentleman from West Virginia.

Mr. WISE. Thank you very much, Mr. Chairman.

I'd like to switch to pretreatment, and I would appreciate your thoughts. In addition to the concerns that you have already raised, and I will be asking this question of the industry testifying later, would it be—could pretreatment also be a way of playing off one community against the other in terms of industrial development? And would there be any merit in a company telling a municipality that "if you're not able to treat our waste, we may look to move elsewhere or to build elsewhere?"

Ms. DUBROWSKI. It is possible that pretreatment could be used in that context. That is why Congress mandated uniform national standards for at least the major industrial categories. If we were to move to a pretreatment opt-out, yes, we would reinstate that danger. There is some flexibility within communities because a POTW has authority to grant a credit to an industry, but only if the POTW itself is doing the job of toxics removal. In other words, if a POTW is removing 50 percent of the toxics, it can give that credit to the industries within the community.

Mr. WISE. I see. Thank you.

Thank you, Mr. Chairman.

Mr. ROE. The gentlelady from Connecticut.

Mrs. JOHNSON. I have two questions. One goes back to this business of variances. I think the fact that EPA approved only four is a tribute to their rigorous dedication to the process. I would be interested in your comments on those four and whether you think they should have been granted exceptions or not.

Ms. DUBROWSKI. Well——

Mrs. JOHNSON. I guess what I'm saying is that my decision as a legislator about variances must depend on whether I think the law is able to anticipate every situation over the decades ahead, or whether I believe that it must, as a matter of principle, as a matter of law building, as a matter of law making, have the right to recognize reality should it vary from the norm.

Ms. DUBROWSKI. To consider each point in turn, yes, there have been very few variance applications granted, but there have been many more—there were 31 that were withdrawn or denied, and there are 23 now pending, some of which have not been resolved for a considerable period of time. Our point is that EPA has had very few instances in its history in which it has needed or relied upon this variance, so the variance is not worth the delay for the other sources, which represent the great bulk of sources.

Mrs. JOHNSON. I don't think you can say that unless you have looked at those four. I think you can say that 31 withdrawn means that 31 realized it was better to comply than to go through this hassling process. The ones that are still there, there's a delay that's a problem, but I think you need to address those four and get back to us about why you think that they should not have been granted because if there is one clearly legitimate variance that should have been offered, then we need to provide a law that allows it.

Ms. DUBROWSKI. I want to be very clear as to the argument that I'm making. We're not saying that EPA should not consider those questions; in fact, we think they should. The point, though, is what is the best and fairest and most efficient process. This is an argument about the process used to consider the question, not whether or not you do——

Mrs. JOHNSON. In other words, so you're not dissenting from the fact that the law ought to allow the granting of variance? You're saying the process allows too much delay and allows the variance procedures to stretch over too many months?

Ms. DUBROWSKI. That's right. The process we would use is the subcategorization process. In other words, when EPA looks at an entire industrial category, it does not say that all iron and steel mills are alike. It sets up subcategories for plants that are different for physical process reasons, age, or whatever. We think that should be done. What we don't think should happen is two different sets of procedures to make the same decision. As it now stands, EPA could make its decision either in a subcategorization, or you could do it in an FDF variance.

Mrs. JOHNSON. In other words, you don't want both categorization and individual exception? See, I don't agree with you on that. I don't think that's rational. I think that categorization helps. It clarifies and speeds along. But to not recognize that within the category of plants of such and such an age, there would be one that is 50 years old and one that is 10 years old is not to allow, I think, the law to be responsive and responsible in regard to 50 States and millions and millions of businesses.

Mr. STANGELAND. Would the gentlelady yield for a moment?

Mrs. JOHNSON. Yes.

Mr. STANGELAND. While a variance or the option for a variance might delay the permitting of some industries, wouldn't the prohibition of a variance require far more information gathering and a much lengthier process of writing rules so that the whole gamut of industries would be delayed or put back in the program by not having the variance feature in?

Ms. DUBROWSKI. That's a point worth addressing. I don't think it does, because not having a variance forces companies to submit their data to EPA during the rulemaking. As it now stands, many companies take the rulemaking fairly casually. For instance, of 500 electroplaters asked to submit data to EPA during the electroplating rulemaking, only 200 responded to EPA's questionnaire. What we're saying is that relevant information should be submitted to EPA during the rulemaking.

Our approach would not take EPA any longer to issue the standard because EPA now sometimes creates subcategories for even one plant in the course of its rulemaking. And EPA has shown, by virtue of the fact that it has issued standards without the safety valve of an FDF variance, that it can meet its rulemaking deadlines. EPA issued six final and four proposed pretreatment standards, all on schedule under the consent decree, without having any FDF variance procedure because at the time those standards were issued, the lower court had struck down the variance.

Mr. STANGELAND. But doesn't it also give you the opportunity to have it work in reverse where the industry doesn't submit all of the data, and the standard then is established and then the industry contests the standard as not being appropriate or proper in court?

Ms. DUBROWSKI. Well, an industry challenge to a standard can only be based on the information submitted to EPA during the rulemaking. It is a record challenge. It must be based on the rulemaking record before the Agency. The way the law now operates, a source cannot simply sit on information and then challenge the rule on the basis of information it did not give to EPA. It can, however, use the variance process for that purpose; that is, it can withhold information during the rulemaking, give it to EPA in the context of a variance, and say "therefore we're entitled to a change in the standard for our plant." That's what we think is unfair.

To return to the point raised earlier, EPA now considers whether each plant within a particular subcategory belongs in the subcategory. That is, is it the same for purposes of pollution control requirements, or is there something about this slant that is different and would justify a different limit? EPA takes that analysis down at times to the level of an individual plant. There have been subcategories for one or two plants. So that process, we think, works well. What we do not think should happen is a repeat of the analysis in the rulemaking, and then again in the FDF variance proceedings.

Mrs. JOHNSON. Well, it seems to me that what we need to do is look at how the variance portion of the law is written to make sure that it well reflects the categorization process, and it can't be used as an alternative to it. And also, that variances are considered in a timely fashion and that the whole issue of delay is addressed.

But I think there is no opportunity for variance when you are regulating by rule so many, many individual cases—that is not sound law, and I think that would build in a rigidity that would be really unhealthy, much as I appreciate the point that you're making.

But categories—even the fact that categories might sometimes contain a universe of one, those universes of one that you're talking about are big guys, they're not little guys, and a lot of the people affected by this law are little guys. And a lot of the people who didn't send back the information are my little guys. The form was too much for them. You have to keep in mind who this Federal body here is dealing with out there; and for that reason, I think a law that was as complex and as important as this that didn't allow variance would not be reasonable and fair. But I do appreciate the points that you've made, and I think perhaps we ought to be looking at how the variance section is written.

But I do want to go back to your opening comments that you made in regard to EPA's interest in having the right to impose civil fines.

You opposed their having the right to impose civil fines. I'm surprised at that. First of all, it gives them a club that will encourage timely compliance; second, we all know that one of the reasons that citizen suits have achieved compliance gains is because, A, small businesses are afraid of being sued; and, B, they can't afford the lawyers' fees and so on. So it represents a club. Likewise, EPA, having the ability to protect from multiple suits, from double jeopardy, if you will, is a club. If our goal is an aggressive law that encourages compliance, you must give EPA the tools, and both fines and the power to protect are important tools. If EPA settled, in the extreme example that you gave, for a dollar, I can't believe that they wouldn't be held accountable in many forums, including this one. And I think to use that argument, to undermine Government's enforcement powers is to work against our own objectives.

Ms. DUBROWSKI. We don't disagree here. We are not saying that EPA should not have authority to assess administrative civil penalties. What we are saying is that if EPA is to have that authority, we need a more carefully crafted provision than exists in the administration's bill. We would be happy to work with the committee on this issue as well as on the FDF variance issue to come up with something that is more carefully crafted.

Mrs. JOHNSON. But you did say specifically that you didn't think that EPA ought to have the right to have their administrative proceedings preclude others from suing the individual business for the same problem.

Ms. DUBROWSKI. Two points. One is that an administrative fine ought not to preclude an injunction or a cleanup order if all that is imposed is a fine, with no injunction or cleanup order. Insofar as the penalty itself, we are not asking that companies be subject to two fines for the same violation; that doesn't make sense. What we are saying is that there should be one decent fine for that violation. As a check on the decency of that fine, there ought to be an opportunity for citizens to participate in the process.

Mrs. JOHNSON. Well, I think that you're posing a very serious question there. The process you describe tends to work out there in the public world to erode the public's confidence in their own Government. I think the check on EPA in terms of providing for fines is us; we are the legislature and their own administrators. But if you constantly have that dialog out there in the suit/countersuit forum, then I think what you do is erode the process of Government and the clout of EPA and impede compliance. And I think that's a really very serious problem, and probably an area of disagreement, one that we'll have to talk about further to see whether it's the way we write the law or whether we write it at all.

Ms. DUBROWSKI. We are not talking here about citizens controlling the process, simply citizens having the right to take their arguments to a Federal district court judge who, in turn, is going to make a decision about the merits of those arguments.

Mrs. JOHNSON. Well, that is what you are saying, but that is not the reality. The reality in my State was that citizen suits were spread far and wide over many people who actually were already in the process with the Government, headed toward responsible settlements, and it did in fact create great agony and exposure for small businessmen. We forget that this law is not the General Motors of the world. It is them, but it is also family businesses, it is small outfits who are already working closely with enforcement agencies. And I know that citizen suits have proved both a hassle and an unfair threat and endangerment to individual citizens who were otherwise well motivated.

I want to be careful that people do not have to live with what they consider to be unfair exposure. I think it is our responsibility in Government to provide them with a tough enforcement mechanism that they must comply with, but then protect them from exposures that could erode their business, that could ruin their reputation, and so on and so forth.

There are some down sides out there to the language that you are throwing around that are very real in people's lives, and I am really concerned with that aspect of your opposition to EPA having the power to protect individuals from other suits by other groups on the same issues that Government is already dealing with them on.

I will not prolong this, but I did want to bring that to the committee's attention because I think it is a very real problem.

Ms. DUBROWSKI. If I might just say in conclusion, the citizen suits we are talking about have been extensively studied by an independent EPA study which found that, on the whole, the suits were good suits. They have been praised by States; for instance, the State government of Connecticut praised them. They have served a legitimate role. That role ought to be continued. Citizens ought to have some right to participate in the enforcement process. Again, I emphasize we are not asking that people be subject to two fines for the same violation; we are asking that the enforcement process be an open Government process one that includes an opportunity for citizens to have a say.

Mrs. JOHNSON. But in all fairness, what the little guy is facing is lawyers fees for two suits, and he can ill afford it when he is being asked to raise capital for pretreatment equipment, especially when the guy over the border isn't.

So, you know, there is a nuts-and-bolts issue here that sometimes ends up as unfairness, and while I recognize that the Connecticut DEP praised those suits because they strengthen their hands, I say give them that strength to begin with, don't require them to have this sort of scissors approach on the citizens.

Ms. DUBROWSKI. I am not aware of any citizens suits which have asked for a penalty where EPA has imposed a penalty. I am aware of citizen suits which have asked the court to order that a source come into compliance where repeated administrative orders have failed. That is a fairly common situation.

If—and this often happens because administrative orders don't have the teeth that a court action does, when people violate the order, it is simply replaced by another administrative order and another administrative order and another.

Mrs. JOHNSON. That is exactly why EPA wants fines.

Ms. DUBROWSKI. And that is exactly why we are saying that EPA should have the authority to assess fines. We welcome any advancement that administrative civil penalties could bring to the enforcement process. But we also think that there is a benefit, a very healthy check on the process, to have the opportunity for citizens to participate and to ask a Federal district court judge to review the adequacy of what has happened if the situation is truly egregious.

Mrs. **Johnson**. Thank you, Mr. Chairman.

Mr. **Roe**. The gentlelady from Maryland.

Mrs. **Bentley**. Thank you, Mr. Chairman. I have only one question of the witness.

Ms. Dubrowski, in your written statement, you make reference to IBT data and testing. What does the "IBT" stand for?

Ms. **Dubrowski**. It stands for "Industrial Bio-Test Laboratories."

Mrs. **Bentley**. Also, would you please explain why you characterize IBT data as now "suspect and deficient"?

Ms. **Dubrowski**. Yes. Some of the IBT data was found to contain false information, but not all of it. EPA is now in the process of going back and figuring out how much of the IBT data is accurate and how much is not. It has not yet concluded that process.

Mrs. **Bentley**. Do they know how that false information got in there?

Ms. **Dubrowski**. There is a court case on this, and I would be happy to provide the details to the committee.

Mrs. **Bentley**. I would appreciate it.

[The following was received from Ms. Dubrowski:]

News and Comment

IBT—Guilty

How Many Studies Are No Good?

by Keith Schneider

One of the most extraordinary white collar criminal trials of 1983 ended in Chicago October 21 when three former officials of Industrial Bio-Test Laboratories were convicted by a federal jury of fabricating key product safety tests used to gain government approval for marketing two popular pesticides and two commonly used drugs. The convictions coming after six months of testimony and nearly eleven days of jury deliberation closed one chapter in the IBT saga regarded by many experts as the most massive scientific scandal in the history of this country and perhaps the world. But the convictions also added a new urgency to a sensitive public health crisis that four federal regulatory agencies are now trying to solve: How many product safety tests used to register thousands of drugs, pesticides, and industrial chemicals sold on the American market are scientifically valid?

Congressional critics charge that high ranking officials at the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the Occupational Safety and Health Administration (OSHA), and the Consumer Product Safety Commission (CPSC) acknowledge that the exposure of IBT in 1976 opened a huge hole at the most fundamental level of the nation's regulatory system: a hole that has not yet begun to be closed. Even more disturbing, say critics, most of the 60,000 or so chemicals in regular use across the country do not have adequate scientific studies supporting their registration and continued use. "Ever since we recognized the magnitude and importance of what happened at IBT, it's just been an ordeal to try and come to terms with it," said Kevin Keaney, a special assistant in the EPA's Office of Pesticides Program. "We've tried to close the data gap, but every time we think we are close something else comes up."

Added Skip Stiles, an aide to Representative George E. Brown, Jr. (D-California), whose House subcommittee on department operations, research, and foreign agriculture held hearings last July on the IBT affair: "IBT was the first warning of a huge problem this government is facing. I think we are going to find more problems before we solve the essential question in this whole issue. How many studies are no good and for what products? It's clear that IBT was not the only laboratory submitting substandard research. There is little doubt that we're going to have to go through a painful cycle before we come up with a way to deal with this."

At issue in the marathon trial, which began in federal district court in Chicago on April 4, are four long-term scientific studies used to market the herbicide Sencor; the pesticide Nemacur; a drug used to treat arthritis inflammation called Naprosyn; and TCC, an antibacterial agent contained in most popular deodorant soaps. All the compounds have been retested and have received government approval for sale nationwide.

Consider this: IBT performed over 2,000 key product safety tests approved by federal scientists to market 212 agricultural pesticides. After a seven-year-long review of its files, the EPA ruled this year that less than 10 percent of the studies are scientifically valid. Just a handful of the invalid studies have been replaced, the agency said, and most of the pesticides continue to be sprayed on fields and forests. Late in September, the agency also revealed that it is a long way from solving problems associated with the integrity of hundreds of studies produced by IBT and other large independent laboratories.

Consider this too: In early October, FDA concluded a twelve-year-long investigation which found that just one-third of 700 active ingredients in nonprescription drugs were "proved effective, as well as safe, for their intended use." IBT conducted hundreds of studies for review by FDA scientists, and the agency has never revealed which products IBT tested.

Add this: the National Toxicology Program, a little known division of the Department of Health and Human Resources, announced in October that it has discovered severe problems with the scientific procedures of a large independent chemical testing laboratory in Louisiana named Gulf South Research Institute. That lab has performed extensive work under contract with the government to test agricultural

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Keith Schneider *is currently editor of News West, an independent news service in Sacramento.* He wrote The Amicus Journal's Spring 1983 cover story on IBT.

and industrial chemicals. The revelations of sloppy work have placed the government's twelve-year-old $180-million program for testing suspected carcinogenic chemicals in jeopardy. "Problems with the quality of scientific studies supporting registration decisions is something this country is going to have to deal with," said Steven D'Arazin, chief spokesman for NTP. "With too many of these chemicals, all we have is just one big question mark. We can't say with any degree of authority whether they are safe or unsafe."

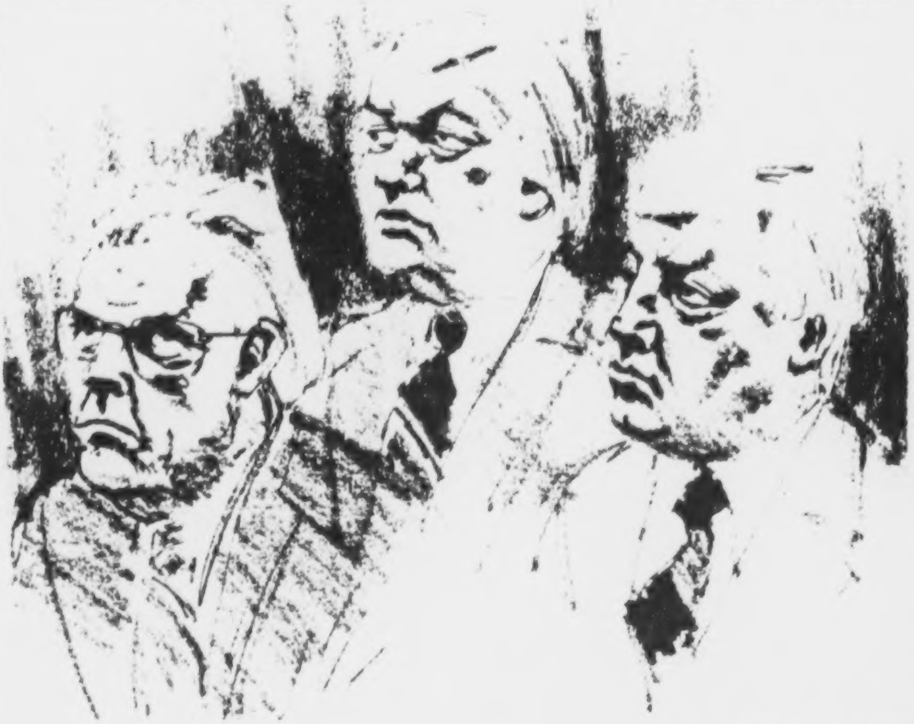
In theory, the federal government's traditional system for insuring the safety of products is simple to understand. Manufacturers must file a comprehensive set of scientific safety tests produced either by their own laboratories or by some 400 independent testing firms. These tests are expected to be conducted under the most rigorous scientific standards. When completed, the studies are sent to scientists at the regulatory agencies where they are carefully reviewed. If federal scientists are satisfied that the chemical will not jeopardize human health or the environment, basing their decisions on the results of the safety tests, they will approve the product for registration. Few people considered just how fragile this system was until they learned about IBT.

IBT, based in Northbrook, Illinois, north of Chicago, was once the nation's largest independent chemical testing firm. Between 1952, when the firm was founded, and 1978, when a U.S. Justice Department investigation closed the laboratory, IBT conducted more than 22,000 critical research studies for nearly every major American chemical and drug manufacturer, dozens of foreign concerns, and several federal agencies. Almost half of the studies were used to gain federal registration for hundreds of drugs, food additives, and pesticides still sold on the American and international markets.

Convicted in U.S. District Court of fabricating just four of the product safety tests were Dr. Moreno L. Keplinger, 53, former section head of toxicology; Dr. Paul L. Wright, 48, former section head of rat toxicology; and James B. Plank, 40, former assistant manager for toxicology. In July, U.S. District Court Judge John A. Nordberg declared a

IBT defendants Keplinger, Plank, and Wright.

Marcia Danits/WBBM-TV News/Chicago



mistrial in the case of a fourth defendant, Dr. Joseph C. Calandra, 65, IBT's founder and former president, after Calandra was admitted to a hospital to undergo triple bypass heart surgery.

Dr. Keplinger was found guilty on six of eight counts of fraud, falsifying statements, and falsifying scientific data submitted to the government. He faces a possible prison sentence of thirty years and a $42,000 fine. Dr. Wright was convicted of three counts of mail fraud and falsifying statements to the government. He faces a possible fifteen years in prison and a $21,000 fine. And James Plank was convicted of five counts of mail fraud and falsifying statements to the government. He faces a possible sentence of twenty-five years in prison and $32,000 in fines.

The IBT trial, which began April 4 and generated over 16,000 pages of court transcript, was the longest criminal trial in the Chicago federal court district in eighteen years. Soon after its start it became clear that the proceedings would last far longer than the original six week estimate of prosecution and defense attorneys.

The opening statement by Assistant U.S. Attorney William Spence, in which he charged "the defendants made up page after page of data and put it in the reports," was interrupted sixteen times by objections from defense attorneys. Much of the trial took place in Judge Nordberg's chambers where three prosecuting attorneys, up to nine defense attorneys, the defendants, and several legal assistants met well over one hundred times to debate technical legal points away from the jury.

None of the six men and six women of the federal jury had been trained in any scientific discipline before taking their seats on the federal panel. Then for six grueling months they were introduced, then inundated by a cascade of mysterious details concerning pathology, biostatistics, tumor identification, animal necropsy, chemical dose relationships, and other arduous disciplines that make up the relatively new science of toxicology.

Dr. Joseph Calandra

Newsweek/Jeff Lowenthal

The long days of dull testimony gave bloom to a cynical humor that coursed through Judge Nordberg's courtroom from time to time. In late July, a federal marshall told Harvey Silets, attorney for Plank, that the jurors had started a betting pool over how long the trial would last. On August 1, juror Michael DeFrancisco, who was repeatedly admonished by Judge Nordberg to get more sleep before arriving in court, tried to gain the inside track in the pool when he sent a note to the judge asking how many more witnesses would be testifying and whether witnesses who had testified previously could be recalled.

Sixteen days later, Judge Nordberg greeted jury members by holding up a page of the court transcript festively decorated with yellow backing and announced that the trial had passed page 12,000. Said Nordberg, brandishing the lone page: "That is an historic milestone, and we will preserve it in the court file for posterity."

Yet interspersed between the days when scientific experts for the prosecution and defense contradicted each other were moments of sensational testimony that kept jurors on the edge of their seats and had the twenty-first floor of the Dirksen Federal Building, where Judge Nordberg's court is located, alive with spectators. It was during these exchanges that the chilling story of the IBT affair was revealed [see Spring 1983 cover story].

In late April, James Rawlins, an IBT technician testified that in the early 1970s filthy conditions in the laboratory's animal feeding rooms caused countless deaths of rats and mice that were not reported to the sponsors of the studies or to the government. "There were feces, hair, and urine stuck to cages. They were heavily saturated," said Rawlins.

In May, Philip Smith, the star government witness, spent two weeks on the witness stand. He said he was ordered to fabricate much of the Naprosyn study and that when he refused, the data tables were filled in and his signature was forged in the final report. Other prosecution witnesses testified that the defendants organized a "scheme" to hide the high animal mortality rate and that data was falsified regularly.

Several jurors, however, said in interviews that the decision to convict the defendants turned on the testimony of Merrill Thompson, a Chicago lawyer hired in 1976 by Nalco Chemical, IBT's parent. Thompson testified in August that after working with company officials for nearly a year, he refused to accompany Dr. Calandra and Dr. Keplinger into a Washington investigative session in December 1976 to answer questions that the FDA was raising about several company studies.

"As I got into it and worked on these things more . . . and worked with IBT people more and looked at the evidence of other practices in the industry, I decided I couldn't defend IBT's practices," said Thompson.

In the trial's last six weeks, defense attorneys argued that the studies in question dated back to 1969, in the case of Naprosyn, and the early 1970s for the others, so long ago that witnesses for the prosecution could not possibly remember details of the studies. They charged that some witnesses for the government were forced to testify or face prosecution themselves, and other prosecution witnesses lied, particularly Philip Smith, in order to cover their own misdeeds. But defense attorneys also acknowledged the existence of an animal feeding room known as the "Swamp" where a malfunctioning watering system sprayed rats and mice, causing unknown numbers of deaths of test animals.

Witnesses for the defense conceded that critical information was missing from IBT's files, but that data used to replace it had not been fabricated. In all, argued defense attorneys, the laboratory's difficulties were the result of untried and pioneering practices begun by the company, and not the result of fraud. "Conditions and practices under which the toxicology tests were conducted at IBT in 1970 and 1972 were well within the standards applied to other laboratories nationwide," said James Robertson, attorney for Dr. Wright. "There were not any real standards. There were no rules. There were no regulations. Toxicology was in its infancy at the time."

But jurors felt otherwise. "They were dealing with chemicals that could cause cancer and other problems," said jury forman Gerald Rasmusen, an unemployed pipe fitter. "To have done the things they did is almost unimaginable."

The IBT scandal was first discovered in 1976 by Dr. Adrian Gross, then a pathologist with FDA, now a senior scientist with EPA. Dr. Gross's discovery was made in connection with a series of sensational hearings held in 1975, 1976, and 1977 by Senator Edward M. Kennedy in which a parade of FDA and EPA officials publicly disclosed that scientific research being conducted by the nation's drug industry and by the petrochemical industry were being deliberately falsified.

The Kennedy hearings and the discovery of IBT's activities led to changes in how the government monitors product testing laboratories. In 1979, the FDA instituted the "Good Laboratories Practices" statute, which among other things standardized the requirements for caring for test animals and insuring accurate record keeping. The FDA also opened a new division with a $5 million annual budget and 100 staff members to investigate independent laboratories and audit studies submitted to regulatory agencies. Yet, in one of its first reports issued in 1979, the FDA said that the work of more than a dozen independent laboratories suffered from "serious deficiencies," in the quality of their scientific procedures. Neither the FDA nor the EPA has said how many studies these laboratories produced for government review or which products are involved. "We are still trying to dig out from the IBT mess," said the EPA's Kevin Keaney. "Maybe that will be the next project."

Staff members at independent laboratories insist that better research is being conducted today in reaction to the IBT revelations and the federal government's response. "We're heading in the right direction, where before this many laboratories were not heading the right way," said Joseph Townsend, director of the quality assurance section at Bio/Dynamics, the nation's third largest chemical testing firm, based in East Millstone, New Jersey. "IBT gave this industry a black eye and we're going to be suffering with it for a long time."

The same could be said for a host of other groups. Among the gravest threats to the health and safety of all Americans is inaccurate science, sloppy science, and, in some cases, fraudulent science. The aftermath of the IBT scandal reaches deep into the lives of most Americans and has proven to be an environmental and public health emergency. Residues of hundreds of pesticides tested by IBT and declared safe appear in measurable quantities in virtually everything Americans eat and much of what they drink. These pesiticides, among them the insecticides toxaphene, DBCP, carbaryl, and the herbicides 2,4-D and 2,4,5-T, paraquat, and picloram have contaminated groundwater supplies and reservoirs, polluted streams and rivers and been implicated in serious health problems throughout America. The EPA has moved to limit the uses of several of these chemicals after subsequent testing showed them to be unsafe, but well over 100 other agricultural chemicals and countless industrial chemicals IBT and other independent laboratories tested remain on the market, and their effects on human health and the environment are unknown.

[From the Wall Street Journal, May 12, 1983]

EPA Turns up Safety Questions in Pesticide Probe

MOST TESTING OF NALCO'S IBT IS THROWN OUT, AFFECTING NEARLY 15% OF MARKET

(By Bill Richards)

WASHINGTON.—The Environmental Protection Agency is completing a study that raises questions about the safety of nearly 15% of all the pesticide chemicals approved for use on the U.S. market.

According to EPA documents, the agency has invalidated 737 of the basic laboratory safety studies involving more than 200 pesticide chemicals tested by Industrial Bio-Test Laboratories Inc., a unit of Nalco Chemical Co., Oak Brook, Ill. Most of the tests were done during the 1970s for 44 chemical companies and concerned a variety of possible health problems that the chemicals could cause, including cancer, birth defects and reproductive hazards.

Industrial Bio-Test halted its commercial testing in 1978 after federal investigators questioned the validity of some of the laboratory's results. Four former IBT officials, including its founder and former president, Joseph C. Calandra, are currently on trial in federal court in Chicago on several criminal charges arising from the federal investigation. No charges have been filed against Nalco, although the chemical company, which bought IBT in 1966, said last week that it had set aside a $23 million reserve to cover the discontinuance of IBT's operations, including the settlement of several civil lawsuits against the lab. The reserve was set aside in 1978, and at the end of 1982, $12 million was added to the remaining reserve.

In the trial, Philip Smith, a former IBT technican, has testified that officials of the laboratory falsified data in studies on TCC, an anti-bacterial agent widely used in deodorant soaps. Federal officials said later tests showed the material to be safe at levels used in soap products.

The EPA study, which is scheduled to be released late next month, is the first broad effort to determine the extent of the problems associated with the flawed IBT tests. In the study, investigators found invalid data used to support a number of widely used products such as Monsanto Co.'s herbicides Roundup and Lasso, Chevron Chemical Co.'s Captan and FMC Corp.'s Furadan. Chevron is a subsidiary of Standard Oil Co. of California.

"The fallout from this single testing laboratory is quite broad," said Edwin L. Johnson, the EPA's director of pesticide programs. "We found ourselves in a position where we had a large hole in our judgment base because of the suspicious data."

In addition to testing for the EPA, a number of tests run by IBT were also submitted by drug manufacturers to the Food and Drug Administration. An FDA spokesman said yesterday that while nearly 200 major IBT tests were rejected by the agency, there were studies from other labs so that the agency didn't have to pull any drugs off the market.

The EPA study says IBT performed 1,205 major animal studies that chemical company clients submitted to the environmental agency in support of putting their pesticides on the market. About 66% of the studies have been thrown out as invalid by the EPA, with another 170 studies still being reviewed. The EPA study says only 19% of the IBT studies were judged acceptable.

Mr. Johnson and other EPA officials cautioned, however, that not all the pesticides may be lacking a valid scientific base, because the EPA may also have validation studies performed by other laboratories. The supplementary data hasn't been compiled yet, said Mr. Johnson, but it is expected to be included in the EPA's final report next month. Mr. Johnson declined to estimate how many pesticides on the market rest on tainted IBT data alone, but he said, "It's enough to make me uncomfortable."

None of the pesticides with invalid IBT tests has been withdrawn from the market, Mr. Johnson said. Under federal rules he said the pesticides can stay on the market until their makers retest them. If they are found to harmful, proceedings can be started to remove them. Mr. Johnson said only a handful of retests have been completed, although a number of others are either under way or are being evaluated by the EPA.

Canada, which is jointly testing some IBT pesticides with the EPA, has taken two products, allidochlor and chlorbromuron, off the shelf. Canadian health officials also have recommended warning labels on 24 other pesticides until follow-up studies are done to replace the IBT tests. Information from the Canadian tests was incorporated into the EPA's report, agency officials said.

According to the Canadian reports, one widely used pesticide—Captan—was found to cause cancers in mice during follow-up tests. The health protection branch of Canada's agriculture agency, which has jurisdiction over the retesting of IBT studies in Canada, reported that studies by the U.S. National Cancer Institute and Chevron Chemical, a major manufacturer of Captan, "clearly demonstrated the induction of tumors in the small intestine of mice at high doses of Captan" and that the studies couldn't determine a "no-effects" minimum level at which the chemical didn't produce tumors.

Spokesmen for Chevron and several other chemical companies involved in IBT tests defended their products yesterday and said many were either already retested or being retested. A Chevron spokesman said his company had spent "in the millions" redoing many of the 156 major chemical tests Chevron commissioned from IBT since the early 1960s.

"Based on our retesting programs," the spokesman said, 'we feel confident that Chevron products in question do not pose an unreasonably adverse affect to man or the environment when used according to the label instructions."

Mansanto said it and completed tests on both Roundup and Lasso, two of the 11 pesticides the company tested with IBT. "We see no data gaps, and we feel confident the data are adequate to support registration by the EPA," a spokesman said. He added that the other pesticides are also being retested in studies that could take two or more years to complete.

[From the New York Times, May 12, 1983]

EPA Faults Tests on 200 Pesticides

WORK BY A LABORATORY INVOLVES CHEMICALS NOW ON MARKET

(By Philip Shabecoff)

Washington—A study by the Environmental Protection Agency has found that two-thirds of all tests conducted by a big private research laboratory to establish the safety of pesticides and herbicides now on the market are scientifically invalid.

The report, which took five years to prepare, finds that virtually all 212 pesticides and herbicides cleared by Industrial Bio-Test Laboratories of Northbrook, Ill., were subjected to at least one invalid test. Many of the pesticides and herbicides are in wide use, including Captan, Paraquat, Lasso, Machete, Orthene and Carbofuran.

Agency officials said the report raised what one of them called "big questions" about the chemicals tested by the company that are still on the market.

But the officials, who asked not to be identified, said the fact that the tests were invalid did not necessarily mean the chemicals posed a threat to human health or safety. It did mean, they said, that new information had to be obtained about the health effects.

The data produced by the laboratory were used by manufacturers to gain Government approval for marketing the chemicals.

The 212 chemicals represent 15 percent of all chemicals registered by the E.P.A., so the invalid tests of the Chicago laboratory could pose a significant problem. There are 44 chemical manufacturing companies involved, many of them major ones such as DuPont, Dow, Monsanto, Ciba Geigy, Olin, Velsicol, and Hercules.

[From the New York Times, May 12, 1983]

EPA Faults a Laboratory's Testing of Pesticides

The tests were conducted to see if the chemicals posed threats of cancer, birth defects, genetic damage or other health problems.

The environmental agency officials said the agency did not have authority under the Federal Insecticide, Fungicide and Rodenticide Act to order those chemicals that were not adequately tested off the market. That cannot be done until the agency has made a finding that use of the chemicals poses a risk of "unreasonably adverse effects."

ALL WE HAVE ARE QUESTION MARKS

"All we have now are question marks," an official said.

The officials remarked, however, that the flawed testing at least raised the possibility that some of the chemicals could present unknown hazards to public health.

The officials said they had not finished evaluating their findings about the Industrial Bio-Test data and did not know how much more information they would need. They said that where the invalid tests were crucial to the information needed to validate the safety of the substances, the chemical manufacturers would be asked to submit new data in support of keeping them on the market.

Four former directors of Industrial Bio-Test are now on trial in Federal District Court in Chicago on charges of misrepresenting data used by the chemical manufacturers to obtain Government approval for the chemicals.

The 212 chemicals tested by the Chicago laboratory are being examined by the environmental agency in cooperation with the Government of Canada, where many of the pesticides and herbicides are also used. The Ottawa Government has refused to permit the use of 16 of the chemicals until questions raised by the Industrial Bio-Test problems are resolved.

The World Health Organization is also examining the implications of the invalid tests.

But the E.P.A. officials said that the fact that the chemicals were subjected to one or more invalid tests by Industrial Bio-Test did not necessarily present a serious problem. In many cases, there was a wide base of data from other sources that provided sufficient assurances of their safety.

On the other hand, even if past tests on chemicals were scientifically valid, it does not mean they were adequate, they said, explaining that new standards often required different tests.

A number of companies voluntarily submitted new data to the agency after the allegations about the laboratory were made public, the officials said.

FAULTY PROCEDURES CHARGED

The report says only that the tests were invalid because they failed to adhere to accepted scientific procedures. It does not address allegations brought at the Chicago trial that test results presented by the laboratory were fraudulent.

Government lawyers have charged that the company falsified such things as the number of deaths among test animals that were subjected to the chemicals.

The E.P.A. officials said they would have reviewed most of the chemicals tested by Industrial Bio-Test in their normal routine of administering the pesticide law. But their five-year concentration on the laboratory's tests was out of the ordinary, they said.

One official said the pattern of invalid tests found at the Chicago laboratory was "unprecedented" and had "shocked" toxicologists around the country.

The existence of the E.P.A. report was mentioned at the Chicago trial. A copy of it was given to a reporter who requested it.

[From the Washington Post, May 13, 1983]

EPA REVIEW FINDS FLAWED TESTS MADE BY RESEARCH FIRM

(By Mary Thornton)

An Environmental Protection Agency study has found that federal approval of more than 200 chemicals and pesticides now on the market was based at least in part on inadequate or falsified health safety tests.

The study focuses on about 1,200 tests of 212 chemicals conducted during the 1970s by Industrial Bio-Test Laboratories Inc. of Northbrook, Ill.

IBT, a subsidiary of Nalco Chemical Co., was once the largest private research laboratory in the country, but it stopped testing in 1978 after federal investigators began looking into its activities.

As a result of that investigation, four former IBT officials, including former President Joseph C. Calandra, are on trial in U.S. District Court in Chicago on criminal charges involving falsification of health test data on chemicals to obtain government approval for marketing the substances.

The EPA study, which has taken five years and is scheduled for release in mid-June, has found that virtually all pesticides and herbicides approved by IBT were subjected to at least one invalid test. It also has found that about two-thirds of the 1,200 individual tests cannot be considered reliable.

Many of the pesticides and herbicides, including Roundup, Captan, Orthene, Machets and Lasso, are widely used by farmers and gardeners.

Rep. George E. Brown Jr. (D-Calif.), chairman of the House Agriculture subcommittee that has held hearings on the EPA's pesticide program, said yesterday that the study raises serious questions about the safety of the 212 chemicals.

"The basic answer is that nobody knows [if they are safe], including the EPA," Brown said. "The EPA cannot prove the chemicals are hazardous in the absence of the data, nor can the companies prove the chemicals are safe."

EPA sources said discovery of the flawed IBT testing will create a gap in the data and require new research, but they added that many of the chemicals were also studied by companies other than IBT.

Tom Slocum, a spokesman for Monsanto Co., said most of his company's major products were tested, at least in part, by IBT. Many Monsanto products are on the EPA list, including the herbicides Roundup and Lasso.

Slocum said Monsanto has conducted new tests to prove the products are safe.

"The concerns about IBT are not new," he said. "Monsanto and many other companies have worked for years to repeat key tests. There's enough information in the data base to support registration [federal approval]."

The federal investigation of IBT began in 1976 when the company was under contract to most of the nation's major chemical companies for studies of the health effects of chemicals and drugs as required by EPA, the Food and Drug Administration, the National Cancer Institute and the Army. IBT clients included Dow, Monsanto, DuPont, Velsicol, Chevron and Ciba Geigy as well as Nalco, its parent company.

FDA investigators raised questions about IBT when they discovered studies showing that the same rat had died several times, sometimes from different causes.

"We reviewed all the IBT" studies . . . to see if any were crucial to approvals we had made, and most were not," FDA spokesman Bill Grigg said yesterday.

He said the two most serious cases of data falsification involved testing of Naprosyn, an arthritis drug, and TCC (trichlorocarbonilide), a substance used in deodorant soaps. After further testing by other companies, both are still on the market.

The IBT officials, including Colandra, Moreno L. Keplinger, Paul L. Wright and James B. Plank, were indicted in 1981 for concealing test results in four major studies, including Naprosyn, TCC, the herbicide Sencor and the pesticide Nemacur.

Mrs. BENTLEY. Thank you, Mr. Chairman.

Mr. ROE. I thank the gentlelady.

The gentleman from Pennsylvania.

Mr. CLINGER. No questions. Thank you, Mr. Chairman.

Mr. ROE. The gentleman from Minnesota.

Mr. STANGELAND. Yes, Mr. Chairman.

Ms. Dubrowski, I would like to touch just a little bit on the pretreatment situation, the pretreatment out-out proposal. I would just set the stage. You have got a POTW that is in compliance with its permit. Its sludge is OK. It has a local pretreatment program working, and water quality standards are being met. In those cases, why should it have to meet further national categorical standards for pretreatment? Isn't that what we are talking about when we are talking about treatment for treatment's sake?

Here is a classic example—and I am sure there are more throughout the country. I visited last January in Los Angeles, and they have certain substances going into their stream that tie up the hydrogen sulfide and protect their pipes and their system. If they were forced to have everybody pretreat and remove those substances in a pretreatment process, the hydrogen sulfide in their stream would eat up the concrete and their pipe and eventually cause a collapse of the system.

So is there not a legitimate need to allow for some local standard and a local program if it is working and if the end result is clean water?

Ms. DUBROWSKI. In concept, the idea of allowing for a local option is not a bad idea; the problem is that the keys to making a decision on the adequacy of any particular local program are not yet in place. For example, EPA was told by Congress to set sludge standards by 1978. It still has virtually no 405 sludge regulations in place. There are some rules for cadmium and PCB's that are land applied. But EPA's data shows that many toxic pollutants are found in sludge. There are not limits which define what is safe and what is not safe for the various sludge disposal options.

At the same time, if you look at water quality standards, many States do not have water quality standards for all of the toxics that are in POTW effluent. By using a less stringent standard than a national pretreatment standard, we are saying that it is safe to go with a lower level of technology when we really don't know about the quality of the water or the quality of the sludge. We may well find out when we do develop that data years from now that the local limits were inadequate and we have to provide additional levels of treatment at those plants because the water quality or the sludge has turned out not to be safe.

That is why Administrator Ruckelshaus said had we gone this way in 1972, we might be in a better position to go with local programs. But we made a decision to emphasize the technology-based nature of this program and we are now in a situation where we don't have the data to make a determination that a local program is acceptable from an environmental point of view.

In fact, many communities are now looking beyond the national categorical pretreatment standards to additional methods of control to protect their POTW's and their sludge. They are developing general prohibited discharge standards or local limits that will go beyond what is in the national categorical standards.

Mr. ROE. Would the gentleman yield?

Mr. STANGELAND. Yes. I would just want to make one point and then I would be happy to yield.

This is one of the problems that I have, not being a scientist. We put all of our emphasis on technology-based standards, that say here is the technology and you must follow it.

I think we ought to take into consideration what is coming out of the pipe, and if what is coming out of the pipe is clean, then not hold them to the high-technology-based standard to just clean for technology purposes to more than is necessary as opposed to a level that assures clean water.

In the case of Los Angeles, they have advised me not to drink the water but said I could and wouldn't be harmed. I trust, and believe they have got technical expertise out there that is equal to, and maybe superior to, a lot of the Agency's expertise. If we are going to clean this up to the point where the national categorical standards say we must clean it up, one day we will go in and we will have the same situation in Los Angeles that we have in Boston and we will be going in there with a massive program to rebuild pipe that is eroded and eaten away because we haven't allowed them to do what they know they can do.

They can clean out the substances that would be in there to tie up the hydrogen sulfide in their POTW, and yet we are going to say, "No, you clean it up first and then put it back in later."

Ms. DUBROWSKI. We are not going with the technology-based approach simply for technology for technology's sake. We are going with a technology-based approach—and Congress made that decision in 1972—because we don't have the data on water quality standards for toxics and sludge quality standards for toxics. As a nation we decided to do the best we can in terms of technology while we try to develop that data. But we are years away from that data. EPA is now saying there will not be sludge standards for several years.

Mr. STANGELAND. Go ahead.

Mr. ROE. Well, I don't know whether I want to belabor this ad nauseum. But you know, we have been at it since 1972, and in candor I have probably listened to more testimony in this Congress than any other human being that exists on Earth, and I have got it up to here [indicating].

I have got it up to there because we get group after group coming in here with all of the answers on simply putting all of the little checks and checkers into place and if we do that and we write it down it's going to be fine. But it just doesn't work that way.

So someplace along the line somebody has got to be gutsy enough around here to say that enough of this is enough and that is where we are right now. We have got thousands upon thousands of cases, and we are nitpicking over three or four. It's a waste of people's time, in my fundamental judgment. It seems to me that if we put one person in jail, we would be spending the rest of the next 5 years putting the rest of EPA in jail as it goes now, because they haven't been following the standards.

I haven't heard one thing from the environmentalists of any real substance in this last few days, in fact the last 3 or 4 months, where the guts of the operation lies, to provide the resources to be able to get the job done. We are concentrating and taking enormous amounts of time on these shadings and "maybe perhaps" and, "If somebody doesn't carry that out in one district"—we know what the situation is in district to district—I am talking about EPA districts.

I think that the environmentalists are spending too much valuable time on cleaning up language rather than figuring out how we get the job done, how do we get the resources out there, and do we fight that budget level.

What is going to really be fought here—let me tell you, there are two issues involved here. One is whether or not we have the resources, and if the Nation is willing to commit the resources to get the job done or we are going to spend and have to hire an army to go into some kind of—what do you call it, what do you call that—surveillance or whatever, somebody on every block.

You know, I think that you are losing the battle for the trees. If we had passed the bill last year, as this committee and 403 Members of the House did, we wouldn't be nitpicking on some of these issues now.

What I am concerned about is whether we can save the legislation at all, is what it amounts to. I am not for the locals opting out, but I will be damned if I am going to tell the locals they have to wait another 10 years before somebody down here makes up their mind what they are going to do or whether they are going to carry out the law.

Consequently, you know, in area after area after area of the Nation, they talk about backsliding, that is exactly what is happening because the energies of the national environmental people are concentrated on language rather than substance to get the job done.

Thank you for bearing me out on that because I just had to get that out, after listening for 24 hours.

Ms. DUBROWSKI. Well, Mr. Chairman, I think we agree more than we disagree. And many of us——

Mr. ROE. I would like us to agree much more than we are disagreeing at the moment.

Ms. DUBROWSKI. Well, we will be happy to work with the committee——

Mr. ROE. We are going to have to go to that floor. Let me tell you something about the human equation in all of this. You know, there is such a thing as consent of the governed to be dealt with, too, and I am just a little bit fed up that on every shading that isn't going just exactly someone's particular way, that they go into my district and issue another 10,000 pieces of paper to tell everybody what a bum I am. I have had that right up to here [indicating] because now I go back and tell my own people what the facts are, because I am beginning to say—and I will say this on the floor of the House—I think, in part, the environmental movement is now becoming the enemy rather than the friend of getting this work done.

The more we fritter, if we are not successful this year, there are two things that can happen. We will get a continuing resolution as far as this legislation is concerned, and it will drag on and it will drag on and it will drag on. We talk about backsliding, the backsliding will be phenomenal in the next 2 or 3 years unless we fund this law and move ahead.

All I am simply trying to say to the environmentalists is let's get down to the realities where we can get things achieved that are achievable—if I am making my point.

But go ahead. I am sorry.

Ms. DUBROWSKI. Mr. Chairman, the Natural Resources Defense Council, which I represent, has to my knowledge never issued an adverse press release in your district on any aspect of this bill.

Mr. ROE. The pastor always talks to the choir, you know that.

Ms. DUBROWSKI. Excuse me?

Mr. ROE. The pastor always talks to the choir. [Laughter.]

Ms. DUBROWSKI. We share your interest in prompt action on this bill. We share your interest in the lack of EPA resources to do the tremendous job that is out there. In fact, many of our concerns about variances and trying to put limits on the process emerge from a concern about a finite world of resources at EPA and an attempt to apply those resources in a way that makes sense.

We also share your concern that the checks on the process be reasonable ones, not arbitrary ones. But we would like them to be adequate, and we will be happy to work with you and the committee to achieve reasonable checks on the process.

Mr. ROE. The gentleman from Minnesota.

Mr. STANGELAND. I just have to conclude by saying that sometimes we wake up and we find the enemy and discover that he is us.

Mr. ROE. Yes.

Mr. **Stangeland**. I just want to recite one example. This refers a little bit to citizen suits as well. We built a brandnew waste water treatment facility in one of my major cities, and I think that I was there for the dedication about 2 years ago. They applied for their permit, and, oh, about 6 or 8 months later they went to the Minnesota Pollution Control Agency and received a notice from EPA in Chicago that EPA was going to issue a press release saying Morehead was in violation of its permit. It turned out that the agency was at fault; it wasn't the waste water treatment plant. The State agency and EPA should have been aware of that.

Now, if that headline had come out, "Morehead is in violation of its permit," some environmentalist citizen could have taken that to a judge and run Morehead through hoops. Morehead is totally innocent. They have got a good operation, a brand-new plant, built to specs, does the job, the whole 9 yards.

I do not disagree completely with citizen suits, but, you know, there has got to be some kind of a break here, too, because you have got some citizens who are overzealous. That concerns me. Some are legitimate and they are concerned, and rightfully so, they should be. But, the overzealous ones are a problem.

I can recall some other horror stories. We had a plant in Bemidji that was condemned, and they jumped through hoops for years and finally came down here and with the help of the chief counsel for, at that time, Water Resources, we found out that the culprit was EPA. Now, that is a long time ago, and EPA is much better today. But it was at the regional office. Finally, when I got it up here, I got the thing resolved. But it's frustrating.

Thank you.

Mr. **Roe**. Are there any other questions?

[No response.]

Mr. **Roe**. We want to thank you very much for your patience and indulgence. We appreciate your testimony. Thank you for being with us today.

Ms. **Dubrowski**. Thank you very much, Mr. Chairman.

[Subsequent to the hearing supplemental questions were submitted by Mr. Stangeland to Ms. Dubrowski. The questions and responses follow:]

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May 9, 1985

Ms. Fran Dubrowski
Senior Attorney
Natural Resources Defense Council, Inc.
1350 New York Avenue, N.W., Suite 300
Washington, D. C. 20005

Dear Ms. Dubrowski:

You testified last week before the Water Resources Subcommittee concerning reauthorization of the Federal Water Pollution Control Act.

A number of questions were not able to be asked during the course of this hearing. Would you please respond to the attached questions and provide a copy of your answers to Mr. Joseph A. Italiano, Public Works Committee Editor, for inclusion in the Water Resources Subcommittee's hearing record.

Additional questions, should there be any, will be forwarded as quickly as possible.

Thank you for your prompt attention to this request and for your excellent Subcommittee testimony.

Sincerely,

Arlan Stangeland
Member of Congress

AS/jdk

Attachment

QUESTIONS FOR
NATURAL RESOURCES DEFENSE COUNCIL

1. ON PAGE 9 OF YOUR WRITTEN STATEMENT, YOU MAKE THE POINT THAT "EPA'S PERFORMANCE ON BPT VARIANCE APPLICATIONS IS, QUITE SIMPLY, DISMAL". OF 58 APPLICATIONS SUBMITTED, ONLY 4 WERE APPROVED. THIS KIND OF LOW APPROVAL RATE WOULD SEEM TO ARGUE, FIRST, THAT EPA WAS BEING PARTICULARLY METICULOUS AND PROTECTIVE IN ITS DECISION MAKING AND, SECOND, THAT THE THREAT YOU RAISE OF WEAKER STANDARDS AND LESS TECHNOLOGY FORCING IS MINIMAL AT BEST. WHAT ARE YOUR COMMENTS ABOUT THIS SITUATION?

2. MS. DUBROWSKI, HOW WOULD YOU RESPOND TO THE ARGUMENT THAT THE ABSENCE OF AN FDF VARIANCE, BECAUSE IT REMOVES A SAFETY VALVE IN THE RULEMAKING PROCESS, WOULD ULTIMATELY LEAD TO MORE CONTENTIOUS AND TIME-CONSUMING RULEMAKING?

3. MS. DUBROWSKI, IF I UNDERSTAND YOUR ARGUMENT, A TRULY FUNDAMENTALLY DIFFERENT MANUFACTURING PROCESS THAT NOTIFIES EPA OF THE UNIQUE AND DIFFERING CIRCUMSTANCES OF HIS MANUFACTURING PROCESD WHICH SHOULD RESULT IN DIFFERING TREATMENT SHOULD NOT BE ENTITLED TO A VARIANCE BUT SHOULD, INSTEAD, RELY ON THE RULEMAKING PROCESS TO ENSURE EQUITABLE CONSIDERATION OF THE DIFFERENCES IN THE APPLICANT'S MANUFACTURING PROCESS. IF EPA FAILS TO PROPERLY CONSIDER THE INFORMATION WHICH THIS MANUFACTURER PROVIDES, WHAT RECOURSE

DOES THE MANUFACTURER HAVE OTHER THAN TO SEEK VACATING THE ENTIRE RULEMAKING PROCESS? (IF THE ANSWER IS NONE) DOESN'T THIS RESULT IN A FAR MORE TIME-CONSUMING AND POTENTIALLY WASTEFUL PROCESS THAN A SYSTEM THAT ALLOWS FOR A SAFETY VALVE TO TREAT WITH CIRCUMSTANCES THAT DO NOT CONFORM TO A NORMAL INDUSTRY STANDARD?

4. ON PAGES 14 AND 15 OF YOUR WRITTEN STATEMENT, YOU MAKE REFERENCE TO "IBT DATA AND TESTING". WHAT DOES THE IBT STAND FOR? WOULD YOU PLEASE EXPLAIN WHY YOU CHARACTERIZE IBT DATA AS NOW-SUSPECT AND DEFICIENT?

[Responses to questions had not been received by the Subcommittee at time of publication.]

[Ms. Dubrowski's prepared statement follows:]

TESTIMONY OF

FRANCES DUBROWSKI

SENIOR ATTORNEY

NATURAL RESOURCES DEFENSE COUNCIL, INC.

BEFORE THE HOUSE SUBCOMMITTEE

ON WATER RESOURCES

ON

"THE CLEAN WATER ACT: VARIANCES AND WAIVERS"

APRIL 30, 1985

A. FDF VARIANCES

Mr. Chairman and members of the Subcommittee, it is a pleasure to be invited to testify here today. Since this Subcommittee last considered the Clean Water Act, there have been several significant developments in the national water pollution control program. Prime among them is a close (5-4) decision by the United States Supreme Court in Chemical Manufacturers Association v. Natural Resources Defense Council, Inc., 53 U.S.L.W. 4193 (U.S. Feb. 27, 1985) to allow EPA to grant case-by-case variances from otherwise uniform, national pretreatment standards (and, by analogy, BAT effluent limitations) limiting toxics discharges.

Although there is no statutory authority for variances for toxics, EPA had issued rules authorizing administrative variances for sources claiming "fundamentally different factors" (hence the acronym "FDF") from the sources considered by EPA in setting national standards. The FDF variance allowed EPA to defer questions about the proper level of BAT or pretreatment standards for some sources in an industrial category until after the standard-setting for the bulk of the category.

In 1977, as part of a general effort to strengthen the nation's program for control of toxic water pollutants, Congress took pains to decide when, and under what conditions, sources could obtain variances from toxic pollution control requirements. For example, Congress eliminated the economic hardship variance in Section 301(c) of the 1972 law -- at least for toxics. Likewise, Congress created, in Section 301(g), a new water quality "safety valve" for BAT limitations, again prohibiting its use for toxics. Finally, Congress enacted Section 301(l) of the Act which said:

> "The Administrator may not modify any [pretreatment or BAT standard] as it applies to any specific pollutant which is on the toxic pollutant list...."

Congress did not qualify the latter prohibition and the legislative history stressed that, with respect to toxic pollutants, there are no waivers or modifications.[1] EPA nonetheless argued that the statute's ban on variances applied only to the variances Congress had created (namely, those Sections 301(c) and 301(g) allow on economic and water quality grounds), not to the variances created by EPA. A majority of the Court accepted this argument, though they acknowledged that the word "modify" broadly read would preclude FDF variances. But the majority found the word "modify" ambiguous; a strict reading of it would, they reasoned, prevent EPA from correcting rulemaking errors or imposing more stringent requirements as control technology advanced. The majority therefore deferred to EPA's interpretation of the statute.

The dissent by Justices Marshall, O'Connor, Blackmun, and Stevens, on the other hand, thought Section 301(l) quite clear and criticized the Court's decision for "validat(ing) outcomes substantially less protective of the environment" than Congress intended. Slip Opinion, p. 4.

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[1] A Legislative History of the Clean Water Act of 1977, Cong. Research Service, Comm. Print No. 14, 95th Cong., 2d Sess. 328-329, 458, 677 (1978).

The Court, of course, expressly declined to reach the question of whether or not, as a policy matter, FDF variances are either useful or appropriate in a national program to control toxic water pollution. That is a decision appropriately left to Congress.

We submit that the same considerations which led Congress to state, in 1977, that variances were inappropriate for toxics pertain with even more force today. FDF variances present five major problems:

1. The FDF variance produces weaker standards than categorical rulemaking.
2. The FDF variance interferes with the Act's technology-forcing goal.
3. The FDF variance unduly delays final decisions on pollution control requirements.
4. The FDF variance wastes agency resources.
5. EPA's handling of FDF variances has been demonstrably inept.

We consider each of these concerns below.

1. Weaker, less uniform standards.

The FDF variance is less protective of the environment than standard-setting during rulemaking because the variance focuses only on a single industrial user. It does not ascertain whether there are any other similarly situated dischargers in the same category. As Justice Marshall's dissent points out, "a scheme in which the initial screening is done by the individual States, at times determined by when the variance application is filed, is unlikely to lead to the identification of new subcategories."

Slip Opinion, p. 22. Hence, the FDF variance produces weaker standards. The dissenting opinion in Chemical Manufacturers, supra, shows how:

"If for example, a discharger shows that its production processes - and, as a result, its costs of compliance - are significantly different from those taken into account in setting the categorical standards, that discharger would be eligible for an FDF variance ... [and, hence, a less stringent standard]." It may turn out, however, that there are many other dischargers in the same situation, and that all of these dischargers use production processes that make pollution control possible at a much lower cost. If EPA took into account the production processes of these more efficient dischargers -- as it presumably would have to do if it proceeded through rulemaking on a categorical scale -- it would set a requirement far more stringent than that adopted as part of the FDF variance mechanism." Slip Opinion, pp. 22-23.

Likewise, if a variance required more stringent controls at a particular facility (there have never been any such variance requests, though EPA maintains that variances for more stringent standards are at least theoretically possible), the FDF variance does not require EPA to decide whether to order other sources to upgrade to the level of this "best performer." In either case, the FDF variance shortchanges the environment.

2. Less advanced pollution control technology.

The FDF variance has no place in a scheme designed to spur technological innovation. That is because it allows some sources to escape "best performance levels" for reasons that have nothing to do with what technology can achieve. It stands to reason that some sources in an industrial category may have to make more significant advancements in their level of pollution control than others, especially where little thought or attention has previously been devoted to pollution control. These dirtier plants may well incur costs, energy requirements, or process disruptions wholly out of proportion to others. Without an FDF variance, dischargers with environmentally unsound production processes would be compelled to purchase new technology or make process changes to meet a standard set by reference to the "best" discharger in their industrial category. With an FDF variance, they might not need to do so. The long-term implications are clear: the FDF variance will relax demand for new technology and therefore remove incentives for technological innovation. That is why Congress repeatedly admonished EPA to set technology-based standards across broad industrial cateories, rather than plant-by-plant, in the first place.

EPA has encountered dramatic evidence that its program works better without an FDF variance. Under EPA's FDF variance rule, for example, General Motors filed variance applications for 27 of its electrolating facilities, all indirect dischargers. Eighteen of these applications sought extensions of the Act's three year compliance deadline for pretreatment standards. When the U.S. Court of Appeals for the Third Circuit struck down the variance, these GM plants faced a compliance deadline only 9 months away. Using a variety of pollution control devices, GM brought 19 of these plants into timely compliance, according to the information it submitted to EPA. The remaining 8 signed up to a compliance schedule in consent decrees entered with the district courts. Had GM been able to pursue an FDF variance, it would have lacked the incentive to devise measures to bring these 19 plants into compliance.

3. Inordinate delay.

Third, and critical to the success of the regulatory scheme, is the all-important question of timing. Congress has always insisted that BAT and pretreatment controls for toxics be installed as quickly as reasonably possible. It therefore set compliance deadlines not more than three years from the date EPA promulgates a standard. If sources are to meet this timetable, they have to embark, shortly after promulgation, on all the steps necessary to attain compliance -- preliminary engineering, obtaining bids, awarding construction contracts, purchasing major equipment components, construction, trial operation, performance testing, and fine-tuning. The advanced technology required by these standards is, after all, hardly an off-the-shelf consumer item.

An FDF variance is antithetical to this timetable. FDF variance applicants must wait close to a year in the best of circumstances -- considerably more on the average -- to know their pollution control obligations.[2] Many may be reluctant to embark on a multi-million dollar pollution control program without a final decision from EPA on their pollution control obligations. While they delay, their discharges go unabated. Nothing could be more at odds with the prompt, comprehensive control Congress had in mind.

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[2] EPA's FDF variance rules for indirect dischargers outline the following minimal procedures: 180 days from the effective date of the standard (longer if a "category determination request" is made) to apply for a variance; an unspecified amount of time for the agency to review the application, set the administrative (footnote continued)

4. Inefficient use of agency resources.

The FDF variance is a Rube Goldberg contraption. It is extraordinarily wasteful of agency resources. It may entail review by as many as four separate tiers of government,[3] an informal public comment period, a hearing, and coordination between EPA's rulemaking experts and diffuse state and regional office personnel -- all of which occurs after the pollution control standards for a source have purportedly already been defined in a general rulemaking proceeding. (See the procedures described in footnote 2, above.)

EPA defends each of these layers of review plausibly. Because the compliance deadline is running, says EPA, a variance

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machinery in motion, and notify the public that an application is pending; at least 30 days for public comment on the application; and an unspecified amount of time for either the State or the EPA regional enforcement division director to weigh the public comments and decide the request. If the request is denied, the following additional procedures may be invoked: 30 days to request a hearing from the Regional Administrator, some again unspecified time for the Regional Administrator to review the enforcement division director's decision and determine whether to hold a hearing, 30 days to appeal to the Administrator (apparently only if the hearing request is denied), additional time for the hearing itself, and an unspecified amount of time for either the Regional Administrator or the Administrator to render a decision. 40 C.F.R. 401.13(g) and (j) to (m).

[3] An application for an indirect discharger is reviewed by the state, the EPA Enforcement Division Director, the EPA Regional Administrator and the EPA Administrator. 40 C.F.R. 403.13.

cannot be granted without the involvement of state and regional enforcement personnel. Likewise, if the statute's uniformity is to be preserved, headquarters personnel must serve as a check on decisions made in the field. Otherwise, sources may end up with very different pollution control requirements based on their location and, hence, who reviews their variance application.

These simplistic arguments sidestep the central issue: is there a better alternative? There undoubtedly is.

It is far more efficient to decide whether plants are different or similar to the rest of an industrial category during, not after, a rulemaking. During the rulemaking the standard-setters can frame the options for decision when the data base is still fresh before them. After the rulemaking, EPA procedures require participation of a much wider group of state and regional personnel, most of whom are totally unfamiliar with the rulemaking record.

EPA has estimated that processing a single variance request will "triple the resource requirements for each permit," even without considering the resources needed to defend the agency's decision in court. A significant member of variance requests, EPA admits, will "upset permitting priorities and [EPA's] ability to reduce the backlog of expired industrial permits."[4]

Elsewhere, EPA continually decries its lack of resources to do the job Congress ordered. It is, for example, years behind statutory rulemaking deadlines, including deadlines for critical BAT rules such as that for organic chemical manufacturers. About 41% of the outstanding NPDES permits have expired without reissuance. EPA estimates that there is "massive noncompliance" with pretreatment requirements, but EPA does not even have the resources to review pretreatment monitoring reports (BMRs). Against this background, it makes no sense to construct standard-setting procedures which fritter away EPA's all-too-scarce resources.

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[4] Memo dated Feb. 3, 1982 from the Acting Director, Office of Water Enforcement and Permits, to the Acting Assistant Administrator for Water.

5. EPA's track record on variances.

The only track record the agency has compiled on FDF variances occurs in the BPT context. EPA's performance on BPT variance applications is, quite simply, dismal. EPA received 58 applications. Most lacked merit: EPA approved only 4; 31 more were denied or withdrawn.

More salient, however, is the fact that EPA gets paralyzed by variance requests. Indeed, once a plant files an application, it enters a regulatory limbo. Of 23 applications still pending, 9 -- or roughly 40% -- predate 1980. Six date to 1976 and 1977. As long as EPA demurs, some applicants are willing to gamble on a favorable outcome and postpone expenditures for pollution controls. True, they are still subject -- at least theoretically -- to enforcement actions, but EPA's enforcement activity has not kept pace with need, as this Committee well knows. Understaffed enforcement personnel are reluctant to sue sources whose pollution control obligations may change before an enforcement action is complete. In short, companies which postpone control expenditures while they sit out variance proceedings gain a competitive edge over those who pay to install, operate, and maintain controls. Congress should redress this inequity.

EPA nonetheless argues that it needs an FDF variance for two reasons: 1) it may not consider, or even receive, all relevant information during a rulemaking, and 2) it may have to delay issuing future standards if it cannot rely on the FDF variance as a safety valve.

Neither argument withstands analysis. EPA's first argument is simply a fig leaf for inadequate agency rulemaking. EPA should consider all relevant information in a rulemaking; if it does not, it runs the risk that its rules will be overturned as arbitrary and capricious. See, e.g., Portland Cement Assn. v. Ruckelshaus, 486 F.2d 375, 393 (D.C. Cir. 1973), cert. denied 417 U.S. 921 (1974), reh. denied, 423 U.S. 1092 (1976). The weight of each rulemaking comment turns on its validity, not on whether it is supported by few or many sources. Hence, it is far safer for EPA to be careful during, not after, a rulemaking.

If, on the other hand, the problem stems from industry's failure to bring relevant information to EPA's attention during a rulemaking, the FDF variance is not a cure. To the contrary, it exacerbates the problem. The variance gives industry an incentive to treat the rulemaking more casually. Without the variance, industry must come forward with all relevant information during a rulemaking. Where it fails to do so, the courts will not entertain a challenge to the rule. The variance, however, gives industry a second bite at the apple. There is no plausible policy reason for a second round of rulemaking. There are, as we noted earlier, strong environmental and management reasons for resolving technology requirements in the initial rulemaking.

Second, EPA raises the spectre that, without the safety valve of an FDF variance, future BAT and pretreatment standards will languish while EPA decides the fate of a few atypical plants. This is pure hyperbole. After the Third Circuit invalidated the FDF variance for indirect dischargers, EPA issued at least six final[5] and four proposed [6] pretreatment standards. All were issued on or about the agency's deadline (i.e., the date established in the Consent Decree). [7] Since EPA has apparently had no problem issuing rules in the absence of an FDF variance, there is no reason to believe it will develop a problem in the future. EPA has not, for example, had a problem issuing either new source performance standards or new source pretreatment standards, yet neither are eligible for an FDF variance.

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[5] 48 Fed. Reg. 49126-49171 (Oct. 24, 1983) (aluminum forming); 48 Fed. Reg. 49808-49831 (Oct. 27, 1983) (pharmaceutical manufacturing); 48 Fed. Reg. 52380-52400 (Nov. 17, 1983) (coil coating); 48 Fed. Reg. 55690-55705 (Dec. 14, 1983) (electrical and electronic components); 49 Fed. Reg. 8742-8831 (Mar. 8, 1984) (nonferrous metals manufacturing); 49 Fed. Reg. 9108-9152 (Mar. 9, 1984) (battery manufacturing).

[6] 48 Fed. Reg. 49408-49436 (Oct. 25, 1983) (inorganic chemicals manufacturing); 49 Fed. Reg. 5862-5883 (Feb. 15, 1984) (plastics molding); 49 Fed. Reg. 8112-8182 (Mar. 5, 1984) (nonferrous metals and iron and steel/copper/aluminum metal power production and powder metallurgy); 49 Fed. Reg. 26352-26483 (June 27, 1984) (nonferrous metals manufacturing).

[7] Administrator Ruckelshaus signed all of the above-referenced standards within a month of the Consent Decree deadline and all but two within a week of the deadline. The standards appeared in the Federal Register shortly thereafter.

Few dischargers -- either direct or indirect -- have thus far tried to avail themselves of the FDF variance. Incorporating the concerns of all plants in a national rulemaking will not, therefore, significantly burden EPA. It will not even add a new feature to EPA rulemaking; to the contrary, EPA already routinely considers unique features of individual plants in rulemaking for both direct and indirect dischargers. Indeed, requests to establish separate subcategories for one or a few plants which are somehow "different" from others in the same industrial category are a common feature of these rulemakings.

Eliminating the FDF variance simply closes off another avenue for raising the same concerns. It frees EPA to concentrate its resources on rulemaking, rather than dispersing them throughout variance proceedings and litigation over variance applications. In short, it produces a better and fairer environmental result. We therefore urge this Committee to modify Section 301(l) to prohibit FDF variances.

B. WATER QUALITY VARIANCES (Section 301(g))

Much of what we have said with respect to FDF variances pertains equally to other variances, in particular, the water quality variance in Section 301(g) of the law. In 1977, Congress adopted Section 301(g) to give flexibility to BAT limitations for nontoxic pollutants. The variance was part of a comprehensive scheme to classify pollutants according to their danger to the environment and, hence, to concentrate the nation's resources on the worst pollution problems.

Congress specifically designated the most pernicious, well-known pollutants as "toxics." Industries discharging these pollutants had to meet strict BAT standards. They were not eligible for variances because Congress recognized that EPA would not have sufficient data to decide a "safe" level of discharge with respect to them.

By contrast, Congress designated less dangerous pollutants -- such as suspended solids, biological oxygen demand, and pH -- as "conventional" pollutants. Industries discharging these substances had to install "best conventional technology," a requirement potentially less stringent than BAT. Because they shouldered a lower pollution control burden, these sources were not eligible for variances either.

Finally, dischargers of less well-known pollutants (sometimes referred to as "nontoxic, nonconventional" pollutants) had to meet BAT effluent limitations. Individual sources could nonetheless obtain a variance for these allegedly "nontoxic" pollutants if they could show:

1. compliance with applicable BPT limits and water quality standards;
2. that a variance would not result in additional requirements on any other point or nonpoint source; and
3. that a variance would not have an adverse water quality impact.

Of course, Congress's directive to EPA to review and, if necessary, revise the list of toxic pollutants on an ongoing basis was integral to the statutory scheme. Indeed, Congress simplified the procedures necessary to "list" a toxic pollutant precisely to facilitate this objective.

EPA, however, ignored Congress's directive to update the toxics list. In fact, since 1977, despite a growing body of scientific literature on a host of chemicals, EPA has never added a pollutant to the toxics list. (It has deleted three). As a result, many pollutants now known or suspected of causing serious adverse health and environmental consequences, including pollutants whose use is severely restricted under other statutes, are not on the list.

Nowhere is this discrepancy more apparent than with respect to the pesticides industry. EPA's proposed BAT effluent limitation for the pesticides industrial category tentatively identifies limits for 143 pesticide contaminants. Only 10 of these are on the toxics list. The remaining 133 include at least 14 pesticides mistakenly registered, in significant part, on the basis of now-suspect IBT data. They include: ametryne, atrazine, barban, captan, chloropropham, dicamba, dinoseb, ethion, glyphosate, methomyl, naled, prometon, simazine, and terbufos. EPA has yet to review or, in some cases, even receive replacement studies for each of these pesticides. Thus, EPA still lacks adequate data on such critical questions as: can any of these pesticides cause cancer? birth defects? damage the nervous system? inflict chronic illness?

The same data gaps exist with respect to many pesticides not affected by IBT testing deficiencies. Approximately 578 pesticides were registered before the current pre-market testing requirements in FIFRA took effect. EPA does not expect to reregister the majority of these pesticides before the mid-1990's. Even those pesticides registered under current FIFRA requirements have not necessarily been subject to adequate health effects testing because of waiver provisions in that law. In fact, the National Academy of Science has concluded that only 10% of the registered pesticides and inert ingredients of pesticide formulations have been accompanied by enough test data to determine the true hazard to human health alone.[8] In short, EPA does not have the data to make the "no adverse water quality impact" findings required by Section 301(g).

We emphasize that our concern is not simply limited to missing data; for many pesticides, existing data illustrates the potential for serious health and environmental consequences. For example, other pesticides not yet on the toxics list but targeted in EPA's BAT effluent limitation include:

o DBCP, banned by EPA for virtually all uses except on Hawaiian pineapples because it causes sterility in males and has been shown in laboratory testing to cause mutations and cancer.

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[8] "Toxicity Testing: Strategies to Determine Needs and Priorities," March 1984.

o Alachlor, shown in recent studies to cause at least four types of tumors in animals, banned for aerial spraying and use on potatoes, subject to recently promulgated occupational safety and labelling restrictions, and now under review as a potential carcinogen which might have to be totally banned.

o Dicofol, under special, expedited regulatory review to determine whether it should be removed from use altogether because it was found to contain the infamous toxic DDT.

o Linuron, also under special, expedited regulatory review as a potential carcinogen.

These pollutants cannot simply be dismissed as "nontoxic."

Section 301(g) would have EPA decide, on a case-by-case analysis of individual sources and stream segments, whether any particular pesticide discharge, alone or in combination with other pollutants, poses a danger to human health, public water supplies, fish and wildlife, or the environment. This task is enormous -- and well beyond the agency's capabilities.

EPA has thus far received 76 Section 301(g) variance applications, primarily from iron and steel and steam electric plants. Headquarters EPA has acted on only one. In that case, EPA took almost a year and a half to determine that indirect sources could not apply for 301(g) variances. That was a purely legal decision (now pending for review in the U.S. Court of Appeals for the Third Circuit, Koppers Co. v. EPA, No. 84-3701).

The factual decisions involved in processing substantive 301(g) applications are infinitely more complex -- more complex even than the technological and economic evaluations EPA has handled so tortoise-like in the FDF context. To review Weirton Steel's application alone, EPA had to assemble a special Task Force of scientists, engineers, and lawyers -- a resource-intensive effort that would be difficult to duplicate often.

In short, continued adherence to the 301(g) variance process will result in significant delays in the final definition of pollution control requirements for many sources, an inefficient use of agency resources, and the danger that, under pressure, EPA will make decisions which pose a significant risk to the environment.

For these reasons, we are pleased to see that the Administration's bill proposes to curtail the availability of 301(g) variances as does the bill reported out of the Senate Environmental Pollution Subcommittee.

The Senate bill would do so by giving safe harbor to all applications completed by January 3, 1985, provided the Administrator proposes to approve the application by the date of enactment of the 1985 amendments. This has the benefit of precluding future applications and the resulting delays in defining pollution control requirements.

The Administration, on the other hand, proposes to limit the eligible pollutants to a list of five, to be revised whenever the Administrator determines that satisfactory test methods and data are available to support revision of the list. This is a far less preferable solution than the Senate bill. It will discourage some variance applicants, but it is difficult to see how it will adequately reduce the demands on EPA to process 301(g) applications (or, in the alternative, petitions to revise the list of eligible pollutants). Instead, EPA will still expend significant scientific, technical, and legal resources making the necessary administrative decisions and defending them in court.

Consequently, we urge the Committee to adopt the alternative proposed by the Senate bill.

C. PRETREATMENT WAIVERS

We are pleased to see that neither H.R. 8 nor the Administration's bill contain a "local waiver" or "local opt-out" provision. Local waiver proposals discussed last year would have allowed some POTWs to obtain exemptions from the national pretreatment program. Industrial users of these POTWs, in turn, would no longer have to comply with national categorical pretreatment standards; they would be bound only by locally developed limits on their discharges.

In previous testimony to this Committee we outlined the dangers of a local waiver provision: it is administratively unworkable, it is extremely resource-consumptive, it will delay pollution controls at POTWs which do not qualify for the waiver, and, because we lack adequate water quality and sludge data, it may dispense with pollution controls on industrial users which ultimately prove to need them.

In addition, when we last testified we noted that a local waiver provision would disrupt the pretreatment program just at the time that rules which had taken over a decade to develop were being implemented. At that time, however, only about 100 POTWs had obtained EPA's approval for local pretreatment programs in accordance with EPA's regulations. Now, over 766 -- or roughly 50% -- of the 1530 POTWs required to develop a local program have done so. Many more have submitted partial or complete applications awaiting EPA's decision. In other words, cities have made significant progress in pretreatment in the past two years. This argues for the wisdom of not disrupting the program at this late stage in its development.

In addition, the Pretreatment Implementation Review Task Force, a 17 member group composed of representatives from industry, environmental organizations, states, cities, and EPA regional offices, has completed its year long assessment of the pretreatment program. The Task Force Report, released by the Administrator only recently, contains approximately 75 pages of recommendations (largely consensus recommendations) for improving this program without statutory change. The report:

- suggests changes EPA can take to simplify or clarify program requirements;
- emphasizes the need for strong and consistent enforcement of program requirements;
- delineates the roles and responsibilities of each of the three different levels of government, -- EPA, states, and cities, -- and cautions EPA to adhere to these roles so as to achieve a working partnership among all levels of government responsible for the administration of this program;
- stresses the need for additional resources at all levels

of government; and

- identifies regulatory changes to improve program coverage, reduce confusion, and eliminate red tape.

We are confident that, if EPA follows these recommendations, the program can work much more smoothly than it has in the past.

Not all of the developments on the pretreatment front, however, represent good news. The Pretreatment Task Force Report notes that EPA has currently assigned, on average, approximately three persons per Regional Office to pretreatment implementation. The Task Force recommends instead that "EPA should either obtain additional appropriations or reallocate resources to dedicate at the Regional Offices an additional 150 person years of effort to the pretreatment program." Information which EPA submitted to the Senate Appropriations Committee after the Task Force developed this recommendation suggests that the Task Force estimate of needed resources may be unduly conservative. EPA, however, steadfastly refuses to increase its budget requests for this program. If the program is to work to the satisfaction of industry, the states, the cities, and the public, EPA cannot continue to budget for it at its current "drop in the bucket" level. We solicit the Committee's assistance in the appropriations process to ensure that EPA gets the resources it needs to make this program work.

Mr. Roe. Next the Chemical Manufacturers Association, Mr. Gordon Wood, vice president of the Olin Corp.

Your testimony will be placed in the record in full. I think it would be profitable if you would summarize the key points you want to make for the members of the committee.

Mr. Stangeland. Mr. Chairman.

Mr. Roe. The gentleman from Minnesota.

Mr. Stangeland. I would just like to take a moment to welcome Mr. Wood back. Mr. Wood served as a senior staff member on this committee, and this is his first time back to testify before the committee. We won't promise him a roast, but it will be very close.

Mr. Roe. Or a rose garden, whatever.

TESTIMONY OF GORDON E. WOOD, VICE PRESIDENT, OLIN CORP., ON BEHALF OF CHEMICAL MANUFACTURERS ASSOCIATION

Mr. Wood. Thank you very much. Good afternoon, Mr. Chairman, Congressman Stangeland, members of the committee. My name is Gordon Wood, and I am vice president of the Olin Corp. I am appearing on behalf of the Chemical Manufacturers Association to discuss possible amendments to the Clean Water Act. I will address both H.R. 8, this committee's bill, and H.R. 2090, the amendments recently proposed by the administration.

I have a detailed written statement which is in the record. I also have a summarized statement which I will, in turn, summarize. That may also be put in the record.

Mr. Roe. If there is no objection, so ordered.

Mr. Wood. Let me also say, Mr. Chairman, my being here on behalf of CMA before this committee is a special moment for me. I spent a lot of hours around this very table and on that dais. They were good times, productive times, and I was proud of the privilege and I am proud of the privilege I had to participate in the work of this committee and especially the Clean Water Act.

The Clean Water Act has been the most effective of all the major new environmental legislation of the 1970's. This committee has reason to be proud of its efforts. Again, I repeat, I am proud to have been a part. The quality of our Nation's waters has improved tremendously since the 1970's, and the act has played that role.

But like all things, it is not perfect, and as time passes, it becomes obvious that additions and corrections to the act are required. This is especially true of the act's compliance deadlines. The act currently requires compliance with best available technology, known as BAT, and best conventional pollutant control technology, known as BCT, limitations by July 1, 1984. As you know well, that date has long since passed, and EPA still has not been able to promulgate effluent limitation guidelines for several major industries, ours included. The issue therefore isn't whether the deadline should be extended but, rather, how much of an extension there should be.

We have heard a lot of testimony today about dotting the i's and crossing the t's and worrying about all the legalese. Mr. Chairman and members of this committee, our regulations are not out. We still don't know what we have to do. Yet, our industry has expended $11 billion—$11 billion—on the Clean Water Act, and that money generally has been spent in response to best professional judgment permits.

It has been spent on the basis of the dischargers sitting down with the permittee and agreeing in the absence of regulations what should be done at those facilities.

You can't meet those dates without knowing what the requirements are. It is time to recognize that Congress cannot legislate and tell EPA when to promulgate regulations. This is clear from the history of the Clean Water Act.

You know, it doesn't seem that long ago, but in October 1972, Congress in section 304(b)(2) said promulgate those regulations in 1 year; 12 years later we are still saying we will probably get those regulations out in 1 year.

Let me just say as an aside, may I suggest that you ask EPA when the organic chemical industry regulations will be promulgated, if in fact there is not an FDF process.

I believe that they are working on those regulations assuming that there will be an FDF process. If there isn't, I suspect—I can't confirm that, but I suspect—the regulations will be out even later. Twelve years, that's a long time.

It is time to recognize also, as I said, that you have in your bill a provision requiring that the regulations be promulgated by a certain date. These regulations require massive data accumulation and sophisticated analysis. It has been stated perhaps that one reason for not having an FDF is that we would hold back data. That is absolutely and utterly false. If anything has happened as far as our organic chemical industry regulations is concerned, EPA has been overwhelmed with the data that we have submitted.

There is no industry as complex as ours. I can give one specific example. We own and operate four chlorine plants. We are in the process of buying another, and we are in the process of building yet a sixth. The first one was built in the 1800's. The other four use different processes. Two of them use different purity of raw materials. One of them makes a different level of quality of product.

All those things that are listed in 304 which should determine—which should determine—what the guidelines should be for different classes and categories are present in just those six plants, which are a very, very simple part of the chemical industry. Saltwater plus electric power equals chlorine, the simplest reaction of all, but it's still very complicated and there should be more than one class and category.

We want our regulations to be promulgated. We are not delaying the regulations. We are accused of delaying the regulations by challenging them in court. When the regulations are challenged in court, we sue on our own time. And perhaps that is proper, I am not sure. But we do want those regulations to be promulgated. We have to know what our resources or requirements are going to be in the future.

With regard to deadlines, any deadline that is established we believe should allow fair time for the permittee to meet those deadlines. A couple of things happen on a BAT deadline. One, it takes the agency, State or Federal, about 6 months to incorporate the regulations into permits, and then, depending on the facility, it takes sometimes as much as 3 years to do the construction and testout and startup and so on of a facility. Three years and six months from the time a regulation is available is an altogether appropriate time, and we do believe that that should be put into the act.

But there is a problem, and there is a problem, frankly, we believe, in H.R. 8, your bill. That is, you require that BCT be implemented on July 1, 1987, I believe. When we receive our BAT regulation and proceed for construction on BAT, generally we will also proceed with construction on BCT at the same time. If our regulations aren't out until 1986, and we are talking 3 years and 6 months, we are required to meet BCT in 1987 when in fact we may not be doing BAT until 1989 or so. And we are going to try to do those two things at the same time. It is really the only economic way to do it.

I commend the committee for recognizing in H.R. 8 the 3-year-and-6-month requirement on BAT. But again I repeat, BAT and BCT are going to be implemented together whenever possible, and we will be spending unnecessary resources if that doesn't happen.

The second issue that I would like to address is administrative and civil penalties. CMA believes that this proposed new system of penalties in H.R. 8 and the administration's bill is not needed for adequate enforcement of the act. This new enforcement authority has to be considered in light of the way in which EPA establishes discharge limitations. EPA effluent limitations guidelines are designed to be achievable a high percentage of the time—it is a statistical process, 95 or 99 percent of the time—by exemplary, basically well-operated plants. That is what the standard is.

Statistical analysis says that 5 percent, or perhaps 1 percent of the time the permittee will be missing those requirements. It is a statistical analysis-based reality.

We don't believe the administrative penalty provisions are required. Under the existing enforcement provisions of the act, EPA must review these violations carefully and decide which are serious enough to warrant filing a lawsuit and asking a court to impose monetary penalties. The full incentive to exercise this discretion and judgment will be lost if the agency is able to assess administrative penalties for any violation of discharge limits.

Should you decide, however, to authorize EPA to impose administrative penalties, we believe that several aspects of that authority should be clarified. A permittee should be given the procedural protections of a hearing under the Administrative Procedure Act before any administrative penalty is assessed. We believe that this is simply due process. You have this in your bill, H.R. 8, and we believe it's the proper thing to do. The administration bill does not have this provision, and I suppose in some regards we agree with the NRDC witness that procedural safeguards are needed if there is an administrative penalty.

In addition, Congress should provide that a permittee would not be subject to both an administrative penalty and a citizens' suit on the same violation. Otherwise, the permittee would be exposed to a double jeopardy of sorts. We recommend you adopt the administration provisions on this issue.

H.R. 8 would also greatly expand the scope of the act's criminal penalties provisions. We understand the intent to address congressional concern with midnight dumpers discharging into municipal sewer systems. We share that concern. CMA believes that criminal penalties are appropriate for serious offenses which threaten the health and welfare or the environment.

However, the proposed bill, we believe, is far broader than needed to address that type of problem. Further, we believe that the provision is so vague that a plant owner or operator really has no clear idea of what is allowed or prohibited. Significantly, the administration bill does not contain a new criminal offense. Apparently, they do not believe the authority is either necessary or advisable at this time.

If Congress is concerned about the midnight dumper problems, we believe it should adopt a more carefully drawn provision which addresses those concerns. Again, should Congress decide to adopt a criminal penalty amendment similar to that set out in H.R. 8, we believe you should, at a minimum, provide for an affirmative defense, as you have done in H.R. 8. A discharger should not be criminally liable for introducing matters into a sewer system or POTW when in fact he was in compliance with all applicable Federal, State, and local requirements, such as pretreatment standards or the local limits set by POTW's.

Another issue that has received quite a level of discussion today—and I think it should be discussed a little bit more—is permits. How long should a permit be. We talk about EPA resources. We know that EPA resources are limited. It is a fact of life. And perhaps they are going to be even more limited at some time in the future as their job expands and as budgets decrease.

The 10-year permit is intended, as Mr. Ledbetter from Georgia indicated, to allow the permitting agency, either EPA or the State, not to have to reopen each and every permit every 5 years. A 307(a) reopener provision allows them, when effluent standards addressing toxic materials are changed, to reopen permits. We believe that that is appropriate.

The resources are limited. It's time to recognize that. It is time to recognize that the limitation on those same resources, perhaps over 20 million dollars' worth of men and labor on our regulations alone, have created real problems at EPA.

If a reopener provision is included, it should require reopening of permits only to incorporate more stringent toxic effluent standards under section 307(a) of the act.

Mr. Chairman, this concludes the oral presentation. A written summary has been submitted, as well as a detailed statement.

I particularly thank you for the opportunity that I have to appear here before you today. In the interest of time I have not addressed a couple of issues, like backsliding and FDF and so on, but clearly and obviously they are important, though.

Mr. Roe. Well, thank you, Mr. Wood, for your testimony, and I am sure that the questions may well get to some of the issues that you didn't discuss in your summary.

The gentleman from Texas, Mr. DeLay.

Mr. DeLay. Thank you, Mr. Chairman.

Mr. Wood, the U.S. Supreme Court recently upheld EPA's authority under the Clean Water Act to issue fundamentally different factor variances. Why do you believe that EPA needs this FDF authority? I know you touched on it briefly, but I would like for you to expand on it.

Mr. WOOD. Oh, yes; we absolutely believe that EPA needs this authority. Last year, in the legislation, in their proposals, they asked for it. Since then, the Supreme Court came down with a positive decision in favor of FDF. EPA has been operating on the assumption that they will have FDF.

I made the comment that it would be appropriate for the committee to ask EPA when the last regulations will be promulgated if in fact there is not an FDF procedure. I am convinced it is going to take them longer, even after 12 years.

Mr. DELAY. Well, how do you respond to the argument put forward earlier by Ms. Dubrowski that the FDF mechanism will result in less environmental protection at a greater cost to the reglatory agency?

Mr. WOOD. I couldn't agree more—excuse me—disagree more. It just would be impossible to disagree more than that. If it has taken 12 years to get out the regulations, it's because, in particular, the organic chemical industry is so complicated, all of our plants are so different, and to try to spend the time on classes and categories for all those—it is not going to be just a couple of classes and categories with one plant or two plants or three plants, there is going to be a bundle of them if they are done properly. And the FDF procedure allows the promulgation of the regulations earlier.

Frankly, I personally believe—and that is why I don't understand their position—the FDF procedure would allow the regulations probably to be more stringent if EPA didn't have to consider all the myriad number of considerations in all the different types of plants. I just fail to understand the argument from that point of view.

It will allow EPA to save resources and save time, not expend them. It won't be wasteful.

Mr. DELAY. One more question, Mr. Chairman.

I know the gentlelady from Connecticut, Mrs. Johnson, has already touched, I understand at great length, on citizen group involvement, and that you have just in your summary talked about administrative penalties versus citizens groups. If I heard you right, you said that EPA doesn't need the authority to issue administrative penalties in order to adequately enforce the act. The environmental groups seem to agree with you. Why do you believe that is so? And what role do the citizens groups play in all this?

Mr. WOOD. I believe that the citizens' suits have played a role that has been positive. For those who are in the regulated community, frankly, a citizens' suit is something that has resulted in some changes to requirements and provisions in some places. But basically, the construction of the act is sound. To set up now an administrative penalty and also allow a citizens' suit to back it up is duplicative. The administrative penalty process is underway and enforcement action is proceeding. Somebody is going to have to pay if in fact they haven't done something they should do. I suspect a citizens' suit could interfere with that process and hold it up rather than serve as an asset. If the goal is enforcement, that is already proceeding. Why is the citizen suit needed in this case? Is it not.

But, no, I personally feel as though section 505 on citizens' suits is something that is appropriate to have in the Act. But I don't think it's appropriate to extend it toward the administrative penalty. The administrative penalty is intended to allow EPA—we don't think it's needed—but it's intended to allow them to go quicker perhaps than they otherwise might, and a citizens' suit would just interfere with that. Again, I don't understand NRDC's position.

Mr. DeLay. Well, do you feel that there is adequate protection against frivolous suits by citizens groups?

Mr. Wood. I don't believe any suit is justified in a case where enforcement is proceeding. We have expended, as I said, $11 billion over the period of time, and all of that has been at the time when we haven't had our BAT regulations. It has been best professional judgment permits, where the permittee and the Agency have sat down and decided what should be done.

Mr. DeLay. Thank you, Mr. Chairman.

Mr. Wood. It's almost called voluntary compliance.

Mr. Roe. The gentleman from Pennsylvania, Mr. Clinger.

Mr. Clinger. No questions, Mr. Chairman.

Mr. Roe. No questions?

Mr. Wood, a couple of bills that have been introduced contain so-called antibacksliding provisions prohibiting downward adjustment of permit requirements to reflect promulgation of new, less stringent regulations. Would you care to comment on these provisions?

Mr. Wood. First and foremost, for the life of me, I am not sure I understand why some argue for the antibacksliding provision. If you recognize that almost all of the permits in our industry are best-professional-judgment permits, they have been set, they have been negotiated by equals, basically—the regulator and the company—well, frankly, I guess we are really not equals in that forum—but they have been negotiated. In the absence of our regulations as we have them right now, what would you do if you were the manager of a plant and somebody said, "Let's sit down and negotiate a best-professional-judgment permit," when in fact you believe that the regulation, when it comes out in 1986 or whenever, may properly require less?

It will serve as a chilling factor on the willingess to sit down and negotiate best-professional-judgment permits in this interim.

One of the objectives of the act also is to provide uniformity. I discussed how the chlorine plants have different levels or in different parts of the country there are different factors and so on. I can visualize best-professional-judgment permits for similar facilities having different levels. Gosh, I can remember way back when, when the act was being worked on, that one of the objectives was to provide uniformity from one place to another.

If I have accepted, foolishly or not, a best-engineering-judgment permit which requires more than the BAT regulation requires, should I be penalized for that or perhaps should I be rewarded for going ahead earlier? We believe, number one, it is unnecessary.

Mr. Roe. Is there a better term to use than "backsliding"?

Mr. Wood. Gosh, that is an awful term. We are not backsliding. We are moving ahead all the time.

Mr. Roe. On pages 11 and 12 of your statement you argue that certain language in section 24 of H.R. 8 could be unconstitutional because it's too vague with respect to, and I quote now the "may reasonably be anticipated to cause" test set out in section 24. You cite in a footnote this 1979 case striking down a Pennsylvania statute.

Are you aware of any additional cases that could be cited to support the proposition you are offering that the bill's language may be unconstitutional? If so, if not now, could you provide it for the record?

Mr. Wood. None now, but yes; I definitely would like to provide that for the record.

[The following was received from Mr. Wood:]

U.S. Supreme Court Decisions Relevant to Unconstitutionality of H.R. 8 Criminal Penalty Provision as "Void for Vagueness"

1) Colautti v. Franklin, 439 U.S. 380 (1979).

The Court struck down, on vagueness grounds, a statute requiring doctors performing abortions to follow certain procedures where "there is sufficient reason to believe that the fetus may be viable." The statute "conditions potential criminal liability on confusing and ambiguous criteria."

2) Papachristou v. City of Jacksonville, 405 U.S. 156 (1972).

The Court reversed several vagrancy convictions because the statute was void for vagueness. The statute "'fails to give a person of ordinary intelligence fair notice that his contemplated conduct is forbidden by the statute,'" and "encourages arbitrary arrests and convictions."

3) Coates v. City of Cincinnati, 402 U.S. 611 (1971).

The Court reversed convictions, on "void for vagueness" grounds, that were based on a statute that made it a crime for three or more people to assemble on public sidewalks and "conduct themselves in a manner annoying to persons passing by."

4) Lanzetta v. New Jersey, 306 U.S. 451 (1939).

The Court reversed convictions under a "gangster" statute that was found to be void for vagueness. The Court stated that: "No one may be required at peril of life, liberty, or property to speculate as to the meaning of penal statutes. All are entitled to be informed as to what the state commands or forbids."

Date 05/17/85

5) Connally v. General Construction Co., 269 U.S. 385 (1926).

The Court declared unconstitutional a statute which required government contractors to pay their employees "not less than the current rate of per diem wages in the locality where the work is performed." The meaning of the statute was unclear, obscure, and "incapable of any definite answer;" the statute therefore violated the constitutional guaranty of due process. The Court stated:

> "That the terms of a penal statute creating a new offense must be sufficiently explicit to inform those who are subject to it what conduct on their part will render them liable to its penalties is a well-recognized requirement, consonant alike with ordinary notions of fair play and the settled rules of law; and a statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application violates the first essential of due process of law."

6) United States v. Cohen Grocery Co.,255 U.S. 81 (1921).

The Court reversed a conviction under the Food Control Act, which prohibited charging an "unjust or unreasonable" price for handling or dealing with "necessaries." The Court found the statute to be invalid because it fixed no "ascertainable standard of guilt" and was not "adequate to inform persons accused of violation thereof of the nature and cause of the accusation against them."

Mr. Roe. Then one last question, and that has to do with the pretreatment programs and the pretreatment opt-out. I wish we had a better phrase for "opt-out" as well. But would you care to comment on the fundamental need for some type of a program of that nature, as we have now but as H.R. 8 would prohibit?

Mr. Wood. Well, we believe that the publicly owned treatment works that are out there have a whole lot more competence and capability than EPA and some of those who criticize their capabilities might suggest.

If a local control program is in place, it simply requires that the publicly owned treatment works must determine how to meet its own requirements. They have the opportunity to get engineering evaluation; they have the opportunity to recognize the capabilities of their facility; they have the opportunity to look at what is going into that facility from various and assorted industries. We simply believe that more can be done, again, faster, if the local facilities are allowed to do it.

Mr. Ledbetter made it very clear what he felt as far as compliance time and conservation of resources to meet the requirements.

We believe that the publicly owned treatment works are very capable. As a company that has working relationships with some of them, let me say they are capable and they keep our nose to the grindstone. They do it well.

Mr. Roe. Thank you.

If there are no further questions, again I want to thank you, Mr. Wood.

[Mr. Wood's prepared statement follows:]

CMA
CHEMICAL MANUFACTURERS ASSOCIATION

ORAL STATEMENT OF

GORDON E. WOOD
OLIN CORPORATION

ON BEHALF OF THE
CHEMICAL MANUFACTURERS ASSOCIATION

BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES
OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

ON
POSSIBLE AMENDMENTS TO THE CLEAN WATER ACT
APRIL 30, 1985

2501 M Street, NW • Washington, DC 20037 • Telephone 202/887-1100 • Telex 89617 (CMA WSH)

Mr. Chairman, members of the Subcommittee: my name is Gordon E. Wood. I am Vice President of Government Relations for Olin Corporation. I am appearing on behalf of the Chemical Manufacturers Association (CMA) to discuss possible amendments to the Clean Water Act. Specifically, I would like to discuss both H.R. 8, the "Water Quality Improvement Act of 1985," and H.R. 2090, the amendments recently proposed by the Administration. My oral testimony will address four issues of concern to CMA. These issues are compliance deadlines, administrative civil penalties, criminal penalties, and permit terms. My written testimony discusses several other issues that are also of concern to CMA.

The quality of our Nation's waters has improved tremendously since the early 1970's. The requirements of the Clean Water Act have played a large role in bringing about this improvement.

Some adjustments to the Act are necessary, however. This is especially true of the Act's compliance deadlines. The Act currently requires compliance with "Best Available Technology" (BAT) and "Best Conventional Pollutant Control Technology" (BCT) limitations by July 1, 1984. That date has long since passed, and EPA still has not promulgated effluent limitations guidelines for several major industries. The issue, therefore, is not whether the deadlines should be extended but rather how long such an extension should be.

H.R. 8 provides a deadline of three years and six months from guideline issuance for BAT, but sets a fixed date of July 1, 1987 for BCT. H.R. 2090 provides three years from guideline issuance for BAT and BCT. We believe that these proposals do not completely solve the deadline problem.

Any deadline established must provide sufficient time for EPA and the states to incorporate issued guidelines into permits and for industry to then design and install the needed equipment. CMA therefore recommends that Congress require compliance with BAT and BCT limitations three years and six months after promulgation of the guidelines on which these limits are based. This would give both the permit-issuing agencies and industry adequate time to perform their tasks; EPA and the states would need about six months to incorporate the guidelines into permits, and industry would need about three years to meet the limits.

The second issue that I will address is administrative civil penalties. CMA believes that this proposed new system of penalties in H.R. 8 and H.R. 2090 is not needed for adequate enforcement of the Act.

The addition of new enforcement authority must be considered in light of the way in which EPA establishes discharge limitations. EPA's effluent limitations guidelines are designed to be achievable a high percentage of the time -- usually 95 or 99 percent -- by well operated treatment systems over an extended period of time. Therefore, EPA expects a certain number of violations to occur even at well operated plants. Under the existing enforcement provisions of the Act, EPA must review these violations carefully to decide which are serious enough to warrant filing a lawsuit and asking a court to impose monetary penalties. The incentive to exercise this discretion and judgment will be lost if EPA is able to assess administrative penalties for any violations of discharge limits.

If Congress decides nonetheless to authorize EPA to impose administrative penalties, it should ensure that a permittee is given the procedural protections of a hearing under the Administrative Procedure Act before any administrative penalty is assessed. H.R. 8 requires an APA hearing, but H.R. 2090 does not. In addition, Congress should provide that a permittee would not be subject to both an administrative penalty and a citizen suit on the same violations. H.R. 2090 contains such a provision, while H.R. 8 provides more limited protection against this "double jeopardy" problem.

H.R. 8 would also greatly expand the scope of the Act's criminal penalties provision. We understand that this amendment was intended to address Congressional concern with "midnight dumpers" discharging into municipal sewer systems. CMA believes that criminal penalties are appropriate for serious offenses which threaten public health or the environment. However, the proposed bill is far broader than needed to address that type of problem. Further, the new provision is so vague that a plant owner or operator can have no clear idea of what is allowed or prohibited. Significantly, the Administration bill does not contain the new criminal offense. EPA apparently does not believe that this authority is either necessary or advisable.

If Congress is concerned about "midnight dumper" problems, it should adopt a more carefully drawn provision which addresses those particular concerns. If Congress nonetheless decides to adopt a criminal penalty amendment similar to that set out in H.R. 8, it should at a minimum retain the provision in H.R. 8 that a discharger will not be criminally liable for a discharge to a sewer system or POTW if that discharge was in compliance with all applicable Federal, state and local requirements.

CMA supports the proposal to extend the term of most permits to ten years. This change would reduce the regulatory burden that EPA and the states face in processing permit applications, thereby alleviating the current problem of delay in permit issuance. In addition, a ten-year permit term would increase stability in compliance planning by industry.

While we agree with the ten-year permit term, we do not agree with the broad "mandatory reopener" provision in H.R. 8 which accompanies the proposed permit term expansion. EPA and the states should not be required to reopen and modify large numbers of permits every time any new, applicable requirement is issued. This provision would impose an enormous burden on the agencies and would deprive industry of the stability in compliance planning that the ten-year permit is intended to bring about.

The Administration bill contains a broad "discretionary reopener" provision. We believe that this amendment, while preferable to the H.R. 8 provision, is simply not necessary. Existing law and EPA regulations give EPA and the states adequate authority to change permit conditions when appropriate. If a reopener provision must be included, it should require reopening of permits only to incorporate more stringent toxic effluent standards under Section 307(a) of the Act.

This concludes my oral presentation. As I mentioned at the outset, the written testimony that I am submitting today addresses several other issues of concern to CMA.

I thank you for the opportunity to appear before you today. I will be happy to respond to any questions you may have.

CMA
CHEMICAL MANUFACTURERS ASSOCIATION

WRITTEN STATEMENT OF

GORDON E. WOOD
OLIN CORPORATION

ON BEHALF OF THE
CHEMICAL MANUFACTURERS ASSOCIATION

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EXECUTIVE SUMMARY

The quality of our Nation's waters has improved tremendously since the early 1970's. The Chemical Manufacturers Association (CMA) believes that the requirements of the Clean Water Act have played a large role in bringing about this improvement. Some adjustments to the Act are necessary, however. Our views on Clean Water Act amendments are as follows:

- Deadlines for compliance. The Act currently requires compliance with BAT and BCT effluent limitations by July 1, 1984. CMA supports an extension of this deadline to three years and six months after the date on which effluent limitations guidelines are promulgated. This would allow EPA and the states time to incorporate effluent limitations guidelines into permits (six months), and would give industry sufficient time after issuance of these permits to design and construct treatment facilities to meet the new limitations (three years).

- Administrative penalties. CMA believes that EPA does not need the authority to issue administrative penalties in order to adequately enforce the Act. If Congress decides nonetheless to authorize such penalties, it should ensure that alleged violators receive the procedural protections afforded by an Administrative Procedure Act hearing and should provide that a source owner or operator would not be subject both to an administrative penalty and to a citizen suit on the same violations.

- Criminal penalties. CMA supports the imposition of criminal penalties for serious violations of the Act which threaten public health or the environment. Section 24 of H.R. 8, however, is far broader than necessary to address that type of problem. It is also so vague that a discharger cannot know what actions may subject it to criminal liability. If such a provision is nonetheless adopted, Congress should provide that a discharger would not be criminally liable if its discharge complied with all applicable Federal, state and local requirements.

- NPDES permit term. Congress should extend the term of NPDES permits to ten years. This would reduce the burden on permitting authorities, which have been unable to issue permits in a timely fashion, and would aid industry by increasing stability in permit compliance planning. Such permits should not be required to be reopened during their term except to incorporate more stringent toxic effluent standards under Section 307(a) of the Act.

- "Fundamentally different factors" variances. The U.S. Supreme Court recently upheld EPA's authority under the Clean Water Act to grant "fundamentally different factors" (FDF) variances. Congress should resist any efforts to overturn the Supreme Court's decision. As the Supreme Court stated, the FDF variance procedure is a "sensible variance mechanism." It enables EPA to set regulations in a more expeditious manner than it could without the variance procedure, and ensures equitable treatment for the small number of unique plants which EPA does not consider in the rulemaking process and which would be unfairly treated as a result.

° Post-BAT requirements. Congress should not at this time develop a program for post-BAT requirements. Such a program is both premature and unnecessary. Instead, Congress should direct EPA to perform a study of the quality of the Nation's waters after the implementation of BAT to assess what additional controls on point source discharges, if any, are necessary.

° Pretreatment. The pretreatment program has centered on national technology-based pretreatment standards that do not effectively implement the water quality goals of the Act. CMA supports an amendment to the Act that would allow qualified POTWs to establish and implement local pretreatment programs in lieu of the national categorical pretreatment standards.

° Non-point sources. CMA supports the efforts of Congress to address the problem of non-point source pollution. Non-point sources are significant contributors of pollutants to our Nation's waters. The magnitude and nature of the non-point problem should be thoroughly examined, and controls should then be imposed on non-point sources as needed to meet water quality standards.

My name is Gordon E. Wood. I am Vice President of Government Relations for Olin Corporation. Today I am testifying on behalf of the Chemical Manufacturers Association (CMA) on possible amendments to the Clean Water Act. Specifically, my testimony will address H.R. 8, the "Water Quality Renewal Act of 1985," as well as H.R. 2090, the amendments recently proposed by the Reagan Administration. CMA is a nonprofit trade association whose members represent more than 90 percent of the production capacity of basic industrial chemicals in the United States. CMA members are directly and significantly affected by the requirements of the Clean Water Act (CWA or "the Act"), and we are thus vitally interested in possible amendments to the Act.

There has been considerable improvement in the quality of our Nation's waters since the early 1970's. The installation by American industry of equipment to control pollutant discharges has played a significant role in this improvement.[1/] This equipment has brought about substantial reductions in the discharge of conventional pollutants, such as suspended solids,[2/] and in the discharge of the toxic or

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[1/] Through the end of 1982, the chemical industry had expended over $11 billion for the construction, operation and maintenance of water pollution control facilities. Bureau of Census, U.S. Department of Commerce, Annual Reports of Pollution Abatement Costs and Expenditures.

[2/] See June 14, 1983 Testimony of William D. Ruckelshaus Before the Senate Subcommittee on Environmental Pollution, Committee on Environment and Public Works; see also "Possible

(footnote continues)

priority pollutants.[3] We urge Congress to consider any proposed amendments to the Act in light of this progress that has been made in cleaning up the Nation's waters.

I. DEADLINES FOR COMPLIANCE WITH TECHNOLOGY-BASED EFFLUENT LIMITATIONS

Section 4 of H.R. 8 and section 6 of H.R. 2090 would extend the deadlines for compliance with technology-based discharge limitations. These extensions are necessary in light of the delays that EPA has experienced in promulgating the effluent limitations guidelines on which such limits are based.

Section 301(b) of the CWA generally requires compliance by July 1, 1984, with "best available technology" (BAT) effluent limitations for toxic pollutants and with "best conventional pollutant control technology" (BCT) effluent limitations for conventional pollutants.[4] When this deadline was established, Congress believed that EPA could issue

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(footnote con't)

Amendments to the Federal Water Pollution Control Act," Hearings Before the Subcomm. on Water Resources of the House Comm. on Public Works and Transp., 97th Cong., 2d Sess. 12 (1982) (hereafter "1982 House Hearings").

[3] 1982 House Hearings at 12-14; Engineering Science, Inc., "CMA/EPA Five-Plant Study" (April 1982).

[4] For BAT limitations on nonconventional pollutants, compliance is required no later than three years after such limitations are established, or July 1, 1984, whichever is later, but in no case later than July 1, 1987.

effluent limitations guidelines promptly, implement the guidelines in National Pollutant Discharge Elimination System (NPDES) permits, and still allow sufficient time (3-3½ years) for industry to install treatment systems to achieve compliance with the limits. This date became unreasonable when EPA was unable to promulgate effluent limitations guidelines for many industry categories in a timely fashion. Indeed, EPA still has not promulgated guidelines for at least six major industry categories, including the organic chemicals industry.[5]

Section 4 of H.R. 8 would require compliance with BAT effluent limitations three years and six months after the promulgation date of the guidelines on which such limits are based. Section 6 of H.R. 2090 would provide a BAT compliance date of three years after the promulgation of applicable guidelines.[6] CMA agrees with the general principle behind both of these proposals. All dischargers would have the same amount of time to comply with the guidelines, regardless of

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5/ These six categories are: 1) organic chemicals and plastics and synthetic fibers, 2) offshore oil and gas industry, 3) foundries, 4) nonferrous metals (phase II), 5) nonferrous metals forming, and 6) pesticides. See Environmental Protection Agency: Regulatory Agenda, 49 Fed. Reg. 42132 (Oct. 22, 1984).

6/ Dischargers subject to effluent limitations based in whole or in part on guidelines issued after July 1, 1985 are subject to a final compliance date of three years after guideline promulgation. For limitations based in whole or in part on guidelines issued on or before July 1, 1985, the Administration bill provides a final compliance date of July 1, 1988.

when the guidelines are issued. Between the two bills, we believe that the House provision is preferable. It would give both the permit-issuing agencies and industry adequate time to perform their tasks; EPA and the states would need approximately six months to incorporate the limits into NPDES permits, and industry would need approximately three years to meet the limits.

The bills differ widely in their approach to BCT compliance. H.R. 2090 sets the same compliance date for BCT as for BAT: three years after guidelines promulgation. However, H.R. 8 sets a fixed BCT compliance deadline of July 1, 1987. We believe that the BCT deadline should be the same as for BAT: three years and six months after guidelines promulgation.

A discharger will generally plan to meet all applicable control requirements at one time by installing a particular treatment system. A discharger faced with different deadlines for BCT and BAT would be forced to try to come into compliance with all limitations by the earlier BCT date, even though his compliance period for the BAT limitations has not expired. This characteristic of compliance planning makes the July 1, 1987 BCT date particularly unfair for those plants whose guidelines have not yet been issued or were issued after July 1, 1984. As noted, EPA still has not promulgated guidelines for at least six major industry categories. For those industry categories, as well as for the two categories whose guidelines were issued after July 1, 1984,[7] the July 1, 1987 date would provide less than three years to come into compliance with the guidelines.

This short deadline is not only unfair to those affected industrial categories; it also may impose requirements that cannot be met. For example, EPA does not expect to promulgate guidelines for the organic chemicals and plastics and synthetic fibers industries until 1986. Under the House bill, these industries would in practice have eighteen months or less to comply with the guidelines -- BCT and BAT. This may not allow sufficient time for the regulated plants to ascertain what additional equipment is needed, order the equipment, and install and begin reliably to operate the equipment. Further, it is inconsistent with the intent of the House bill that dischargers be given three years and six months to comply with BAT. To alleviate this problem, the BCT deadline in H.R. 8 should be made consistent with the BAT deadline: three years and six months after guideline promulgation.

If a facility must comply with more than one set of effluent limitations guidelines, the compliance date for BCT and BAT should be not later than three years and six months after promulgation of the last applicable guideline. This would enable plants to design their treatment systems when they know all of the limitations that must be met. Otherwise, a discharger may design and install a treatment system to meet one limitation, only to find out that a subsequently-issued limitation requires the use of another entirely different, or even inconsistent, treatment system.

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[7] These categories are: 1) inorganic chemicals (phase II), 49 Fed. Reg. 33402 (Aug. 22, 1984), and 2) plastics molding and forming, 49 Fed. Reg. 49026 (Dec. 17, 1984).

CMA's recommended deadline -- three years and six months after issuance of effluent limitations guidelines -- also should apply to compliance with new BPT requirements. For several industries, including the organic chemicals industry, EPA's original BPT regulations were withdrawn and have yet to be reissued. Therefore, when EPA issues the final BAT and BCT limitations, it will also issue final BPT limitations. Congress should allow three years and six months to comply with new BPT limitations if these limitations require a level of control substantially greater or are based upon fundamentally different technology than the BPT limits established under previous NPDES permits.

Congress should also provide a specific deadline for compliance with permit limits which are established in the absence of promulgated effluent limitations guidelines -- so-called "best professional judgment" (BPJ) limits. A discharger should be required to comply with these limits within three years from the date that the limits are established in the permit.

II. ADMINISTRATIVE PENALTIES

Section 25 of H.R. 8 and section 16 of H.R. 2090 would authorize EPA to impose administrative penalties for violations of the Clean Water Act. CMA opposes the addition of such a new system of penalties to the Act. There has been no demonstrated need for administrative penalties; the judicial mechanism is adequate to ensure compliance with the Act.

Many violations of the Clean Water Act are technical in nature and unavoidable. EPA's effluent limitations guidelines are designed by the Agency to be achievable either 95 or 99 percent of the time by exemplary treatment systems over an extended operating period. Thus, a certain number of violations are statistically expected to occur, even at exemplary plants.8/ Under the existing enforcement provisions of the Act, monetary penalties for such violations may be imposed only by a court.9/ This requires enforcement personnel to consider carefully the merits of any particular case, and to make judgments about which alleged violations are sufficiently serious to pursue. Under an administrative penalty scheme, however, EPA would not have to go to court to impose a penalty.

8/ See 47 Fed. Reg. 54015-16 (Nov. 30, 1982).

9/ EPA has not been reluctant to use its enforcement authority under § 309 of the Act. As for administrative convenience, many of these § 309 actions are settled without need for lengthy proceedings.

The incentive for the Agency to exercise discretion and judgment would be lost.

If Congress decides nonetheless to adopt an administrative penalty provision, it should ensure that the provision gives an alleged violator the procedural protections of an Administrative Procedure Act hearing, including an impartial hearing officer,[10/] as well as the right to subpoena witnesses and evidence for the penalty hearing. Also, if an administrative penalty is assessed, the source owner or operator should not be subject to a citizen suit on the same violations.[11/]

There is one other aspect of the Administration bill's administrative penalty provision that bears further comment. H.R. 2090 provides a maximum penalty of $10,000 per day for each violation, up to a total of $125,000. The Administration's section-by-section analysis explains that the "for each violation" phrase is meant to ensure that violations of, for example, daily maximum limits for three different effluent parameters on the same day are counted as three separate violations, each subject to a $10,000 maximum

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[10/] H.R. 8 requires an APA hearing, but H.R. 2090 does not.

[11/] H.R. 2090 provides this protection. H.R. 8 prohibits assessment of a penalty in a citizen suit on the same violations, but does not prohibit the citizen suit itself.

penalty.[12] We oppose this provision. Violations of several different parameters on one day are often due to one operational incident. For instance, an upset in a biological treatment system will frequently lead to violations of several permit limits during the upset, simply because of the nature of the treatment system. Penalizing each of these excursions as a separate violation would not deter multiple violations, since the source owner or operator has no means to control the number of parameters violated during the upset. Therefore, the administrative penalty provision should treat multiple violations of permit limits on one day as one violation, subject to a $10,000 maximum penalty. The "per day for each violation" phrase in H.R. 2090 should be rejected in favor of the "per day of violation" clause in H.R. 8.

There is another reason why the Administration's proposed "per day for each violation" amendment should be rejected. This language could be interpreted to provide that one violation of a monthly average limit would be treated as 30 violations -- one for each day of the month. That one violation could then be subject to 30 penalties. Such a result is directly contrary to a practical understanding of wastewater treatment systems. A discharger can experience a violation of a monthly average as a result of a few days in the month which are far above the limit, even if all other days in the month are below the limit. The Administration bill could be read to treat such an incident as 30 violations -- one for every day of the month, including those on which the limit was not exceeded. To avoid this unreasonable result, the Administration's proposed "per day for each violation" language should be rejected.

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[12] H.R. 2090 also proposes to apply the same phrase -- "per day for each violation" -- to judicial civil penalties under § 309(d). The reasons expressed here for rejection of the proposal in the administrative penalty context apply in that situation as well.

III. CRIMINAL PENALTIES

Section 74 of H.R. 8 would increase the criminal penalties under the Clean Water Act and greatly expand the scope of the criminal penalties provision. We understand that this new provision is directed toward Congressional concern with "midnight dumpers" discharging into municipal sewers. CMA believes that criminal penalties are appropriate for serious offenses which threaten public health or the environment. However, the proposed provision is far broader than needed to address that type of situation and is unduly vague. Significantly, the Administration bill does not contain the broad new criminal authority provided in H.R. 8. EPA apparently does not believe that this new provision is either necessary or advisable.

A. Penalties for Discharges to Sewer Systems or Publicly Owned Treatment Works

Section 24 would make it a criminal offense to discharge negligently or knowingly into a sewer system or a publicly owned treatment works (POTW) pollutants or hazardous substances which cause or may reasonably be anticipated to cause personal injury or property damage, or which cause a violation of the POTW's NPDES permit. The Administration bill does not contain this new offense.

An example of the lack of clarity in this provision is the phrase "may reasonably be anticipated to cause" personal injury or property damage. To prohibit conduct which "may" cause a particular result sets no clear standard by which the regulated entity can judge the legality of its actions. The source owner or operator must determine for himself whether discharging a pollutant or hazardous substance will later subject him to criminal liability because EPA and a Federal judge decide that the discharge had a potential for causing harm that he should have known about. This liability would attach even if no harm actually occurred, as long as the court decides that the harm should have been expected. The only course that the owner or operator can follow to be certain of complying with the law is to refrain from discharging anything into a sewer.[13]

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[13] In a case which dealt with a similar question, the Supreme Court struck down on vagueness grounds a Pennsylvania
(footnote continues)

As a general rule, a criminal statute must be drafted so as to give those whose conduct is to be regulated fair notice of what is prohibited and to keep within reasonable bounds the discretion afforded the government in enforcing the statute. The fair notice requirement is satisfied only if the law is clear to "men of common intelligence," Connally v. General Constr. Co., 269 U.S. 385 (1926), or, if the statute would normally suggest the need for legal advice, its meaning can reasonably be determined through such advice. Where a criminal law is so vague as to fail this test, it is void under the due process clause of the Fifth Amendment. Id. The "may reasonably be anticipated to cause" test, therefore, could be unconstitutional. Moreover, it opens up a virtually uncontrollable area of discretion for law enforcement with the concomitant risk that enforcement will be arbitrary and capricious.

Another vague provision is the phrase "sewer system." That phrase is nowhere defined in the House bill. In fact, it appears unnecessary, given the broad definition of "treatment

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statute requiring doctors performing abortions to follow certain procedures where there is "sufficient reason to believe that the fetus may be viable." Colautti v. Franklin, 439 U.S. 380 (1979). The Court there found the quoted language ambiguous for the very reason that it could have been read to subject the doctor to criminal penalties on the basis of the after-the-fact judgment of third parties.

works" in Section 212 of the Act. Does the inclusion of "sewer systems" in the bill mean that a source owner/operator could be liable for discharges to a plant's own internal sewer system? This is another example of an ambiguous phrase which is not readily susceptible to interpretation by those who might be subject to the law.[14/]

If Congress is concerned about "midnight dumping" problems, it should adopt a more carefully drawn provision which addresses those particular concerns. Congress should not enact a broad, ill-defined provision that would unwittingly encompass other activities that do not warrant criminal sanctions.

If Congress nevertheless adopts a criminal penalty provision along the lines of H.R. 8, it should retain the affirmative defense in H.R. 8. That defense provides that a discharger will not be criminally liable for a discharge into a sewer system or POTW if the discharge was in compliance with all applicable Federal, state and local requirements. Without this affirmative defense, a discharger could be convicted and sent to prison for a discharge which was allowed

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[14/] CMA is also concerned with the definition of a "hazardous substance" in the House bill. The definition is redundant since the term "pollutant" is already broadly defined by the Act. There is also great potential here for overlapping enforcement authority under the various statutes to which the definition refers. We believe the definition should be deleted as unnecessary.

by all applicable regulations but which a court later decides the discharger should have expected to cause harm. This would be the case even if no harm actually resulted but the court decides that harm should have been expected.

B. Violations of Pretreatment Programs

Section 24 would also make it a felony to violate "any requirement imposed in a pretreatment program approved under Section 402(b)(8)" of the Act. Again, this amendment is _not_ in the Administration bill. The intent of this provision is unclear. Section 402(b) of the Act contains NPDES permit requirements applicable to POTWs, and subsection 402(b)(8) requires that permits for POTWs include programs to assure compliance with pretreatment standards. If the felony provision is intended only to cover federal categorical standards, it is redundant since violations of Section 307(b) of the Act are already punishable. If the proposal intends to make it a _federal_ crime to violate local pretreatment requirements, it violates basic principles of federalism. Congress made local controls the province of the POTW, and expressly decided not to require permits for industrial users of POTWs.[15] CMA believes that local pretreatment requirements should be enforced by state and municipal authorities and not by the federal government.

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[15] Conf. Rep. No. 1236, 92d Cong., 2d Sess. 130 (1972).

IV. NPDES PERMIT TERM

CMA supports the proposal to extend the term of most NPDES permits from five to ten years. The issuance of longer permits would reduce the regulatory burden on EPA and the states in processing permit applications. A longer permit term would also increase stability in compliance planning and would help to ensure that treatment technology installed by industry at great expense will not be made obsolete shortly after it has been installed.

However, we do not agree with the "mandatory reopener" provision which accompanies the proposed permit term expansion in H.R. 8. This provision requires that a permit be reopened and modified whenever new or revised toxic effluent standards, BAT toxic effluent limitations guidelines, or water quality standards are issued that would result in limitations that are more stringent than existing permit requirements or that control pollutants not limited in the permit. Such a broad, mandatory reopener requirement would take away most of the benefits afforded by a 10-year permit. EPA and the states would be faced with the burden of reopening and modifying enormous numbers of permits once a new, applicable requirement were issued, even if the regulatory change were insignificant. Industry would lose any stability in compliance planning, since new requirements could be imposed at any time during the permit term.

Thus, while CMA strongly endorses extending the term of NPDES permits to ten years, such an extension should not be accompanied by a mandatory reopener provision. There is simply no need for such a provision. Section 402(k) of the Act and EPA's existing regulations already require permits to be reopened to incorporate Section 307(a) toxic effluent standards necessary to protect human health. EPA's regulations also provide that a permit may be reopened whenever new information (other than new regulations) or changed circumstances make modification of the permit appropriate. Moreover, the permitting authority is always free to impose more stringent limits when a permit is reissued. H.R. 8's broad reopener provision would remove the permitting agency's discretion to decide when to impose new limits on a discharger. Instead it would require the permit to be modified promptly to incorporate a new, more stringent requirement, regardless of the nature of the new requirement or the time remaining until permit reissuance.

The reopener clause in the Administration bill is preferable to the H.R. 8 provision, but is nonetheless not necessary. The Administration bill provides that permits may be reopened and modified when new, more stringent effluent limitations guidelines, water quality standards, or other requirements are issued. As noted above, the current Act and regulations already provide adequate authority for EPA and the states to change permit conditions when appropriate. There is no need for a broad "discretionary reopener" provision.

If Congress believes it is necessary to provide for a reopener provision, it should conform the reopener to EPA's existing regulations, which require permits to be reopened only to incorporate new or modified toxic effluent standards under Section 307(a) of the Act that are more stringent than the requirements in a permit. This would protect human health and the environment, while still ensuring regulatory efficiency and stability in compliance planning.

V. FUNDAMENTALLY DIFFERENT FACTORS VARIANCES

The United States Supreme Court recently upheld EPA's authority to grant "fundamentally different factors" (FDF) variances under the Clean Water Act in a case entitled Chemical Manufacturers Association v. Natural Resources Defense Council, Inc. The Supreme Court upheld the position advanced by EPA and CMA that Section 301(l) of the Act was not intended to bar so-called FDF variances for toxic pollutants. The court also described the FDF procedure as a "sensible variance mechanism."[16/] Congress should resist any efforts to overturn the Supreme Court decision.

The FDF procedure has been a key feature of the national effluent guidelines program since its inception.[17/] The availability of an FDF determination is essential to allow EPA to develop national guidelines for typical facilities in an expeditious fashion, while allowing the consideration of plants with atypical features to be addressed separately. As the Supreme Court said, the FDF procedure "makes bearable the enormous burden faced by EPA in promulgating categories of sources and setting effluent limitations."[18/]

To obtain an FDF variance, a facility must show that it is fundamentally different from those considered in establishing the national regulations, and that compliance with the national regulations would result in excessive costs or adverse non-water quality impacts. The plant that receives an FDF variance from a BAT-level standard is not "exempt" from BAT, but will be given an individual BAT limit based on the statutory factors in Section 304(b) of the Act. As the Supreme Court held, the FDF determination is not a modification procedure which is precluded for toxics under Section

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[16/] Slip op. at 17.

[17/] E.I. du Pont de Nemours & Co. v. Train, 430 U.S. 112, 128 (1977); 40 C.F.R. §§ 125.30, 403.13.

[18/] Slip op. at 15.

301(1) of the Act, but instead is an alternate procedure for determining the applicable technology-based limitations for a facility.

The FDF procedure is a "limited safety valve" which is important to both EPA and industry. It enables EPA to set regulations more quickly, and serves to insulate those regulations from legal attack on the ground that some unique plant was not considered in the rulemaking process. For industry, it provides an opportunity for equitable treatment of that small number of atypical plants which cannot be considered in developing regulations and which are unfairly handicapped as a result. Congress should resist any effort to restrict or prohibit the FDF device, which the Supreme Court termed a "laudable corrective mechanism."[19]

VI. POST-BAT REQUIREMENTS

Section 5 of H.R. 8 establishes a complicated new procedure for establishing water quality-based, "post-BAT" effluent limitations. EPA must identify within one year all waters in the country that, due to discharges of toxic pollutants, cannot reasonably be anticipated to attain or maintain state water quality standards after implementation of BAT and other existing requirements. Within eighteen months after identifying such waters, EPA must establish for individual point sources effluent limitations adequate to attain water quality standards. This provision, which is not contained in the Administration bill, is neither necessary nor appropriate at this time.

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[19] Slip op. at 13.

EPA is still in the process of promulgating BAT effluent limitations guidelines for major segments of American industry. Final promulgation of all BAT effluent limitations guidelines will not be completed until some time in 1986. It will then take about three years and six months for EPA and the states to establish permit limits and for industry to design, install and begin to operate the technology necessary to meet the guidelines.[20/] Any designation of waters that fail to meet water quality standards should be deferred until BAT technology has been installed. Only then will it be possible to determine with any certainty what, if any, additional controls beyond BAT will be necessary to meet water quality standards.

Moreover, both EPA and the states already have the authority to impose post-BAT controls.[21/] Former Administrator

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[20/] See Section I above, at pp. 2-6.

[21/] EPA has this authority under Section 302 of the Act. The states retain authority, under Section 511 of the Act, to adopt requirements more stringent than those established by EPA (such as BAT guidelines). These requirements would include controls needed for attainment of water quality standards.

Ruckelshaus has termed post-BAT amendments "neither necessary nor desirable."[22] If additional controls on point sources, beyond BAT, become necessary in order for water quality standards to be attained, EPA and the states have full authority to fashion appropriate requirements.

We are also concerned that the post-BAT proposal would fundamentally alter the way in which water quality standards are established under the Act. The development of water quality standards has always been the primary responsibility of the states, subject to oversight by EPA. States are in a better position than the federal government to know what limitations are necessary to achieve designated water quality, based upon local needs and conditions. Section 5 would remove this decision-making authority from the states, who are better equipped to exercise that authority, and transfer it to the federal EPA. Such a transfer of responsibility would be ill-advised, particularly when there are no compelling reasons for making such a radical change. Primary responsibility for setting water quality standards should remain with the states.

Instead of enacting legislation to address post-BAT concerns before BAT has even been implemented nationally, Congress should direct EPA to gather necessary data, once BAT

22/ Letter from William D. Ruckelshaus to the Honorable Robert H. Michel, Office of the Minority Leader, U.S. House of Representatives, dated June 5, 1984 at p. 2.

has been implemented, on the quality of our Nation's waters. EPA would seek to determine what problems, if any, remain after implementation of BAT and the source of those problems. The inadequacy of the data necessary to assess the quality of our Nation's waters has been a long-standing problem. The lack of data was recognized in 1976 by the National Commission on Water Quality,[23] and has been noted by EPA on several occasions since then.[24] CMA believes that the time has come to address this fundamental problem head on.

Congress should require EPA, once BAT has been implemented, to undertake a comprehensive analysis of the quality of our waters, taking into account attainable uses of those waters as designated by the states. In particular, EPA should be required to obtain reliable and analytically sound data on the amount of pollutants still present in our waters, the effect of such pollutants, and their sources. Only when such data have been compiled and analyzed can Congress intelligently decide what point source controls beyond BAT, if any, are necessary.

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[23] Final Report of the National Commission on Water Quality, H. Doc. No. 94-418, 94th Cong., 2d Sess. 10, 31-32 (1976).

[24] United States Environmental Protection Agency, Office of Research and Development, No. 600/8-80-003 at 243; 1982 House Hearings at 104. See also, Environmental Resources Management, Inc., "Priority Pollutant Data on Receiving Streams of the United States," Final Report for Chemical Manufacturers Association (June 1982).

VII. LOCAL CONTROL OF THE PRETREATMENT PROGRAM

The current program for regulating industrial discharges to publicly owned treatment works consists of national technology-based pretreatment standards. However, the application of uniform EPA categorical pretreatment standards will not appreciably reduce water quality violations where they exist.[25] Moreover, the mixture of industrial and other discharges to POTWs varies so widely that any water quality problems that exist can better be controlled at the state and local level.[26] Accordingly, the CWA should be amended to allow qualified POTWs the opportunity to implement local programs in lieu of the federal categorical standards.

A. The Need for Alternative Local Programs

Section 307(b) of the Act authorizes EPA to establish national pretreatment standards for pollutants that interfere with the operation of POTWs or pass through untreated. As part of the pretreatment program, EPA promulgates national technology-based pretreatment standards applicable to industrial dischargers of toxic and nonconventional pollutants. Typically, these "categorical" pretreatment standards have been identical to BAT effluent limitations guidelines applicable to direct dischargers. In the development of these standards, EPA has given inadequate consideration to the amount of interference with the operation of POTWs and the extent to which municipal treatment systems effectively remove pollutants.[27] Meeting such standards will therefore inevitably require expenditures by industry for treatment that substantially duplicates treatment by most POTWs.

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[25] JRB Associates, Inc., "Assessment of the Impact of Industrial Discharges on Publicly Owned Treatment Works" (Nov. 20, 1981) at Table 4-3.

[26] *Id.* at 4-1.

One example of this potential for redundant treatment is found in EPA's proposed pretreatment standards for the organic chemicals industry.[28] While EPA has not specified the treatment technology necessary to meet the standards, the data on which EPA relies to support the proposed standards are based entirely upon treatment available by biological systems -- the identical treatment employed by most POTWs. To meet the pretreatment standards, industrial dischargers may be required to duplicate the very treatment provided by these POTWs.

To alleviate this problem of redundant treatment, Congress in 1977 provided for modifications of national

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27/ Current EPA policy requires imposition of BAT-level pretreatment standards whenever BAT treatment would remove more than typical POTWs even where POTW removals are at very high levels. (See 48 Fed. Reg. 11841 (Mar. 21, 1983)).

28/ 48 Fed. Reg. 11828 (Mar. 21, 1983).

categorical pretreatment standards to reflect pollutant removals achieved by POTWs. EPA has implemented this provision in regulations that allow POTWs to apply for so-called "removal credits," but the regulations are quite complex and restrictive, so that as a practical matter credits may not be widely available. Without credits, industrial dischargers will be required to install expensive treatment technology to meet pretreatment limits even though the POTW may remove all of most of certain pollutants in the dischargers' effluents.[29/]

We believe that the pretreatment program can be strengthened by directing attention to the particular problems of interference and pass through identified in Section 307(b) of the Act, and by placing principal responsibility for pretreatment requirements on the municipalities and states involved. A lengthy report prepared in 1981 by EPA's contractor, JRB Associates, concludes that such a targeted approach would be most effective.[30/] Similarly, a 1980 House Oversight Report recommended that steps be taken immediately

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[29/] Data from municipal treatment plant monitoring show that POTW secondary treatment is extremely effective at removing toxic organics. "Fate of Priority Pollutants in Publicly Owned Treatment Works," (EPA-440/1-82/303) (Sept. 1982). This is consistent with the Five-Plant Study results discussed above at p. 1.

[30/] JRB Associates, Inc., "Assessment of the Impacts of Industrial Discharges on Publicly Owned Treatment Works" (Nov. 20, 1981).

to allow municipal treatment authorities to implement their own pretreatment programs, including local pretreatment standards.[31]

B. Alternative Local Programs

CMA believes that Congress should allow the implementation of local pretreatment programs in lieu of EPA categorical standards where the municipalities have the capability to develop and enforce such programs. In order to qualify for local authority, a POTW would have to develop and implement a local pretreatment program to control industrial dischargers as necessary to avoid interference with its operations and pass through of pollutants. Each POTW would bear the responsibility to address any particular problems confronting its treatment system. In addition, the POTW would have to be either achieving secondary treatment or be on a schedule of compliance. These secondary treatment requirements would be enforced through the POTW's NPDES permit, together with requirements necessary to meet water quality standards and applicable sludge regulations. The POTW would also have to show that it has adequate funding and other resources to implement its local program.

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[31] "Implementation of the Clean Water Act," Subcommittee on Oversight and Review, House Committee on Public Works and Transportation, Comm. Print 96-71, 96th Cong., 2d Sess. 62 (1980).

The POTW is in the best position to determine what pretreatment standards are necessary in order to solve local compliance problems and protect the integrity of the treatment system. Each POTW has a unique situation based on the nature of its treatment system, the influent to that system, and the receiving stream to which it discharges. Rigid national categorical pretreatment standards leave no flexibility to address those unique problems.

Congress has spent billions of dollars for central municipal treatment systems through the construction grants program. Industry should not be required to devote additional large amounts of resources for unnecessary and redundant treatment. Instead, industry pretreatment requirements should be established on a local basis by the entity which is in the best position to identify needed controls, namely the local municipal sewage treatment agency. We recognize that some POTWs may not have the inclination or resources to develop a local program, and in those cases the EPA categorical standards would remain as a backup. However, we submit that where a POTW has the authority and resources, a locally-developed pretreatment program is the most effective means for accomplishing the objectives of the Act.

VIII. NON-POINT SOURCES

Section 8 of H.R. 8 deals with the very serious problem of non-point source pollution. CMA supports the efforts of Congress to address this issue. The issue of non-point source pollution should be thoroughly examined and controls should then be adopted on such sources as necessary to protect the quality of the Nation's waters.

As noted earlier, pollution control by industry over the past decade has resulted in major improvements in water quality. In contrast, significant sources of non-point pollution, such as runoff from farms and urban areas, have not yet been effectively controlled.[32/] As a result, we believe that more stringent controls on industry will not result in appreciable gains in water quality. On the other hand, further progress in improving water quality can be made in a comprehensive and effective manner if prompt attention is given to non-point source pollution and its control.

In order to address this issue, the term "non-point source" needs to be clearly defined. The magnitude of the non-point source problem should then be determined through

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32/ See "National Water Quality Goals Cannot Be Attained Without More Attention To Pollution From Diffused Or 'Non-point' Sources." Comptroller General of the United States (Dec. 20, 1977).

studies and the establishment of a data base for use by Congress and EPA in controlling non-point source pollution. Controls on such non-point sources should then be established when necessary to meet water quality standards.

In addition, non-point source pollution should be taken into account in establishing both water quality standards and discharge limitations on point sources to meet those standards. Contributions of pollutants by non-point sources, and the impact of non-point source controls, should also be considered in developing wasteload allocations.

CONCLUSION

This testimony discusses key areas in which Congress should reevaluate and modify provisions of the Clean Water Act to improve its effectiveness in the coming years. CMA is prepared to cooperate with the Congress to address these issues in a constructive manner.

Mr. ROE. We will hear next from Mr. Whitehouse and Mr. Fisher.

TESTIMONY OF ALFRED WHITEHOUSE, ENVIRONMENTAL ENGINEER, BUFFALO COAL CO., BAYARD, WV, AND WILSON FISHER, PRESIDENT, HESS & FISHER ENGINEERS, CLEARFIELD, PA, ON BEHALF OF MINING & RECLAMATION COUNCIL OF AMERICA AND THE PENNSYLVANIA COAL MINING ASSOCIATION

Mr. WHITEHOUSE. Thank you, Mr. Chairman. My name is Alfred Whitehouse. I am the environmental engineer for Buffalo Coal Co.

I am also chairman of MARC's Water Quality Subcommittee. With me today is Wilson Fisher, president of Hess & Fisher Engineers, a member of MARC and also a member of MARC's Water Quality Subcommittee.

Unlike some of the others who have testified, we are going to split up our testimony. We have four points we would like to make or emphasize from our prepared statement. So we will switch back and forth if that meets with the approval of the committee.

Mr. ROE. Fine.

Mr. WHITEHOUSE. First, we would certainly like to commend the committee for including the provision on remining. Remining is a very, very important issue in Appalachia. Many of the coal reserves remaining are those that have been previously mined. Many have bad discharges, and the provision that you have included in your bill, as well as the provision that is included in the administration's H.R. 2090, address this problem.

We would however like to express our concern that for the modification of effluent limits provided in the remining provision to provide the intended incentive for the industry to remine, the modification must be based on mass loadings. The EPA effluent limits are based solely on concentrations, and that only tells half of the story. It is important to know how bad, but it is equally important to know how much. Many of the improvements that the industry can make during remining would have to do with reducing the quantity. We may not always be able to reduce the concentration of a discharge, but we can certainly reduce the quantities and therefore make a marked improvement in water quality in the drainage areas that are affected.

Another point that we need to make is that discharges that emanate from abandoned mines are often both point sources and nonpoint sources, and we would urge you to include both types of discharges. In the case of an abandoned deep mine, for example, it is very clearly a point source, where you have an abandoned mine opening and the water is coming from that point. Often, in abandoned surface mines there is a zone of seepage at the toe of the spoil pile which is clearly not included as a point source under the Clean Water Act language. We would like those included as well because we believe we can substantially reduce the impact of these types of discharges.

Finally, we would urge that the applicability date, or the date of effectiveness, not be quite so strict as the date of enactment of the Surface Mining Act. Even though the act was passed in Washington in 1977, regulations were not promulgated until 1979, and in fact the impact in the field was not felt until some time after that. Statistically, there was quite a rash of abandonments and small operators going out of business at the time that the full impact of the Surface Mining Act was felt.

The language that currently exists limits the modification for remining to those sites that are pre-law, and I would urge you to reconsider that and possibly look at another date somewhere at the time of enactment of the interim regulations, which would include another broad category for which there are no bonds sufficient to do reclamation.

At this point I would like to turn it over to Mr. Fisher.

Mr. Roe. All right.

Mr. Fisher. Mr. Chairman, I would also preface my comments with the statement that I am also, as chairman of the Pennsylvania Coal Mining Association's Technical Committee, I am speaking on their behalf today, too. I would like to acknowledge the support and assistance that Congressman Clinger and his staff have provided with Pennsylvania Act 158. This significant legislation in our State mining process took approximately 4 years to accomplish. Mr. Clinger's office gave a great deal of support to our State legislature in this process.

We have talked with the committee before about the development of this legislation. Actually, it speaks to the specifics as far as baseline pollution load, limits of liability, which Mr. Whitehouse was referring to, and to bond release criteria for reclamation of an area that has been previously mined and has now been reclaimed to present and satisfactory standards, as specified by the provisions of the Federal Surface Mining Act.

I said that Pennsylvania Act 158 took about 4 years in the development process and we are not home free yet. This bit of legislation was hammered out initially in committee, a working committee that involved industry, Government representatives, and members of the environmental community at our State level.

I might point out that the environmental community was anxious to work with the coal mining industry in this specific because they felt that the reclamation of 250,000 acres of abandoned mine lands in Pennsylvania was not proceeding with diligence and was not likely to proceed with any magnitude of success, given the limitations within the constraints of the AML funds extracted through a 35-cent-per-ton reclamation fee at the Federal level.

The environmental community perceived this as being an appropriate step to get us moving together and having industry carry the ball as far as accomplishing the objective was concerned, which is a followup to Congressman Roe's statement a little bit earlier. We are getting to the level of where the action really is. Industry is going to have to do it, and we are willing to embrace that.

Although Pennsylvania Act 158 was passed last fall, we were compelled under the Federal Surface Mining Act to submit those provisions to the Federal Office of Surface Mining for their overview and discernment as to whether or not it is consistent with the Federal Act guidelines. If they find that to be the case, then it can be implemented as part of the Pennsylvania program.

The Federal Office of Surface Mining felt that this was really an issue for EPA to look at because it deals with effluent standards and they needed their oversight on this matter. EPA made the determination that with two modifications, it would be acceptable as far as the provisions of the Clean Water Act are concerned. Interesting bit of circuitous redtape that we are going with here, but all necessary in order to achieve compliances with, the various statutory provisions.

The two provisions, whereas not perfectly acceptable to industry at this point, we are willing to live with. One being EPA's insistence upon using concentration units for effluent guidelines rather than loading, which Mr. Whitehouse referred to earlier.

Second, although the planned mining area is rather extensive it contains a separate section, which we refer to in Pennsylvania Act 158 as the "pollution abatement area"—that is, the preexisting discharge or pollutional elements resulting from prelaw mining activity.

The EPA interpreted that the unencountered discharges within the pollution abatement area have to be treated first to BPJ standards. Whereas this interpretation will eliminate the entire incentive to the mining industry, we haven't walked away from the table yet.

The step that is taking place now is an assessment of what BPJ effluent limits would be for the abandoned mine lands instance. In order to accomplish this, since it has not been done by EPA before, they have entered into an agreement with the Pennsylvania Department of Environmental Resources as the lead agency in this regard and also arranged through a grant with Penn State University. Penn State University will be modifying their economic development model for mining. This comprehensive model was developed over the last ten years for the U.S. Bureau of Mines at considerable expense. It contains a fair degree of sophistication and incorporates multitude of variables. Many of us feel that it may provide the answers that we are seeking in this case and that it will help provide industry with the incentives necessary to attack this problem.

As I said, the jury is still out. I am participating on an oversight panel on behalf of industry to see that industry's viewpoint is represented through this assessment process. We are keeping our fingers crossed.

But the provisions dealing with remining—and I wish to conclude this portion on remining with this statement—the remining provisions of H.R. 8, in the language that was worked out with Congressman Clinger and Congressman Rahall, was fundamentally on target and is not inconsistent with the activity that I have just related that is going on in my home State of Pennsylvania.

Going on to the second topic area in our formal presentation, that deals with intermittent and low-flow streams. We in the mining industry have some concerns with the fact that water quality-based standards are applied to certain high-quality streams.

The mainstem stream, once given a high-quality designation, which may or may not have been based upon a great deal of field data, field investigation or knowledge about the total characteristics of the entire watershed of that particular stream, has a substantial detrimental impact upon our mining activities. Typically, we mine in the upland sectors, the feeder tributaries that they are headwaters to some of these higher designation watersheds.

As a result of the high-quality designation, these tributaries, be they ephemeral, intermittent, or low flow, or, as Congressman Roe referenced earlier, perhaps dried up completely as a result of drought conditions, we are imposed upon to the extent that we have to meet very stringent instream water quality standards additionally we have to meet a quantity limitation that limits our discharges to a fixed percentage of the total stream flow.

Obviously, if it goes droughty and we are still encountering water in our mining operations as a result of our excavation activities, we are precluded from discharges during these drought periods. The discharges need not be incompatible with downstream water quality characteristics or the aquatic biota that may have established themselves there. We would address that particular portion of the act by way of amendment and have done so in our comments.

I will defer to Mr. Whitehouse at this point.

Mr. WHITEHOUSE. At this point I think I would like to cite an example of treating for the sake of treatment. The mining industry is dealing with rainwater and groundwater. In much of Appalachia the pH of this groundwater and streamwater is below the EPA effluent standards for pH.

Many ecosystems in the country and throughout the country have adapted to acidic conditions. Certainly, the bogs in your State of Minnesota, Mr. Chairman, and we have bogs in Appalachia, these thrive at pH ranges of 3.5 to 4.5. We have documented cases where, by treating the natural groundwater, discharging it into a surface stream which passes through a bog, we have in fact killed that ecosystem.

So not only are we treating for the sake of treatment, but actually treating to the detriment of the environment. This is another case where we feel that some flexibility needs to be written into the effluent limits, and although we are not certain you can address this through legislation at this point, we would certainly urge you to instruct EPA to revisit the issue of pH and determine whether or not their national cure in fact is rational on a regional basis.

We feel that there are many instances where the pH can be adjusted downward with absolutely no ill effects, while preserving the ecosystems which have adapted to and thrive in low pH water.

Mr. FISHER. Lastly, Mr. Chairman, we would like to comment on the NPDGS permit and specifically to urge, as far as the mining industry is concerned, which deals strictly with conventional pollutants, that the 10-year permit life is most appropriate. H.R. 8, as Congressman Roe referred to earlier, does attempt to address some classes of permits; I would submit to you that for conventional pollutants, for whatever industry deals with that classification, the 10-year permit life would certainly be most appropriate. Most of our mines have a life expectancy in excess of 5 years.

We have multimillion-dollar capital equipment investments in equipment, planning, leases, and permitting costs all up front, in order to establish a mine before we ever turn one spade of earth. We need the 10 years to amortize our capital outlay—no ifs, ands, or buts—or run the risk of having it jeopardized at some point in midprocess. Ten years would provide us with some degree of security so that we can proceed with this level of industrial activity. It would minimize the burden that occurs during the renewal process, which other individuals have referred to a bit earlier.

That indeed concludes our comments. We stand for any questions that you wish.

Mr. Roe. Thank you.

The gentleman from Georgia, Mr. Rowland, any questions?

Mr. Rowland. No, Mr. Chairman, I have no questions.

Mr. Roe. The gentleman from Pennsylvania, Mr. Clinger.

Mr. Clinger. Thank you very much, Mr. Chairman.

I would like to express a particular welcome to Wilson, who is from Clearfield County in my district. I am always glad to have you before the committee, Wilson.

Mr. Fisher. Thank you, Bill.

Mr. Clinger. I think you covered this remining problem, I think quite well. I guess the question I would have is in the absence of the kind of a provision on remining, like the one we have in H.R. 8, what has been the impact? Has there really been little or no effort to do any remining because of the very stringent requirement that is imposed upon the industry?

Mr. Fisher. Yes. Yes, it has, Bill. In fact, there have been two profound impacts, one very major one as a result of the legal interpretation of the regulations in the State of Pennsylvania, for instance, and the other States are similar. We are operating on the premise that if you touched a preexisting discharge, you bought that discharge. If you bought the discharge, you're obliged to maintain effluent-standard water from that discharge into perpetuity. Now, that has caused considerable reluctance on the part of mining companies to enter into any remining activities on sites that have preexisting discharges.

The secondary consequence of this is that more and more virgin undisturbed areas are being mined as a result, and there are excellent coal reserves still present within the areas that have been mined in the past that should be mined that are not being touched, as a consequence of this prohibition and the potential liability.

Now, in the long term, I also see in my home county of Clearfield that at some point in time as the coal reserve base dwindles and mining activities move further west—a certain amount of this movement is progressing now—that the capital-intensive equipment, the mining companies' administration skills and the management know-how and the work force itself are going to be removed from these areas, then if it is ever going to be done, it will have to be done at public expense in some capacity.

Mr. Whitehouse. If I may interject, sir.

Mr. Clinger. Yes.

Mr. Whitehouse. There are, grossly speaking, three different types of sites. There are sites that have been previously mined which industry would consider of low risk, where the pieces of the puzzle are still fairly visible and we can go back in and remine and be fairly assured that we will not have a perpetual liability.

Then there is a large group of sites where many of the pieces of the original puzzle were thrown away and there are many variables that place us at risk if we go in and remine. Then, of course, there is the ground that is untouched and unmined where we have full control over the entire operation, again, placing us in relative safety.

So I think that it is not fair to say that there is no remining, but I think what is fair to say is that those sites of low risk are fast disappearing and we are left only with those sites now that do place the operator at risk and one I would admit to say he is not willing to take without some relief.

Mr. CLINGER. Too high a risk for him to assume?

Mr. WHITEHOUSE. Yes, sir.

Mr. CLINGER. Without some protection——

Mr. WHITEHOUSE. That's correct.

Mr. CLINGER [continuing]. From the consequences of reopening the site?

Mr. WHITEHOUSE. That's right.

Mr. CLINGER. In the testimony you indicate that enactment of remining provisions such as the one in H.R. 8 or in the administration's bill, H.R. 2090, would in Pennsylvania's case result in a potential savings of $75 million. I think that was what you alluded to. Could you define how you estimate that savings?

Mr. WHITEHOUSE. The abandoned mine land fund is apportioned to the States by OSM. If the industry is encouraged to remine these funds can be directed to those sites which have no marketable or minable reserves and to those sites where the problems are really awesome and wouldn't be tackled by an individual operator. The result is that industry would clean up a far greater number of sites than would ever be possible if only the abandoned mine land fund was used to do that work.

Mr. FISHER. Right. In that context, I mentioned the 250,000 acres of abandoned mine lands, pre-law mine lands in Pennsylvania that we have. That doesn't even address the deep mine problems, where we are spending a great deal of the AML fund that is coming into Pennsylvania right now.

The total mine reclamation effort has been projected by our DER as having a $15 billion price tag. Given the current planned level of expenditure of AML funds from the Federal Surface Mining Act coming back to Pennsylvania being a total of some $700 million over the life of the program, we can begin to see that we are just beginning to crack the tip of the iceberg as far as the problem is concerned.

We have got to go back, getting back to what Congressman Roe was stating before, to where the problem is going to be solved. Industry is going to solve the problem or it is not going to be solved.

Mr. CLINGER. Just one final question. You mentioned act 158—that it was felt that the act needed to be reviewed here by OSM and OSM kicked it to EPA for their sign-off and that EPA had raised a couple of concerns as to whether or not it would be in compliance with the Clean Water Act.

Would the provision that we have inserted into H.R. 8, if that were to be enacted, would that obviate those problems?

Mr. FISHER. I think so. I think it will. I think that EPA would clearly recognize the signal from Congress as obviating that. That is one of my hopes and expectations, that the Pennsylvania legislation could be implemented and we can get on with the task, otherwise I see this thing being strung out for another year at least. We have been 4 years working on it. Lord knows whether another year is going to be sufficient.

Mr. CLINGER. All right. Now, you mentioned the concern that you had that whatever amendments we adopt to the Clean Water Act, that we take into account the concern that both point-source and non-point-source pollutants be involved in terms of the abandoned mine problem. Does the language of H.R. 8 adequately address that, in your view, or are you suggesting that we need to provide something further to clarify that we intend to be dealing here with both point and nonpoint sources?

Mr. WHITEHOUSE. Yes, sir. H.R. 8 actually is silent on the specifics, which would lead me to believe that both could be included. H.R. 2090 specifically uses point-source discharges, and I think that is a weakness in that legislation.

I think it is important to say that it is necessary for a change to be made in the law in order for the remining to take place. We do not feel that EPA and OSM have the legal ability to do what needs to be done to provide the incentives to the industry to remine most of these sites that place us at risk. So we are looking to you to make the proper and necessary changes.

Mr. CLINGER. And the bottom line is that by providing this, we will get vastly enhanced cleanup over and above what we could otherwise?

Mr. WHITEHOUSE. And at a greatly accelerated pace, yes, sir.

Mr. FISHER. And greatly accelerated.

Also, in response to your question, Congressman, the language in H.R. 8, in its present form as established during last session, is very supportive when one goes to the legislative record. Most specifically the colloquy between yourself and Congressman Rahall on the subject, as addressing the language of Pennsylvania Act 158 and being consistent with it.

So I think the answer there is, "Yes."

Mr. CLINGER. Well, I thank you both very much for your testimony and for your leadership in this area. Thank you.

Mr. FISHER. Thank you.

Mr. ROE. The gentleman from Texas, Mr. DeLay, any questions?

Mr. DELAY. No questions, Mr. Chairman.

Mr. ROE. Well, again I want to thank the panel very much. I have one request of you, Mr. Whitehouse. If you could provide for the committee record some specific examples of specific locations where treatment has diminished or destroyed the ecosystem, it would be very helpful as we move along in our deliberations, and again I want to thank the panel very much for an excellent statement.

[The following was received for the record from the Mining & Reclamation Council of America:]

1984 Symposium on Surface Mining, Hydrology, Sedimentology, and Reclamation
(University of Kentucky, Lexington, Kentucky 40506-0046—December 2-7, 1984)

Destruction of a Wetland Ecosystem by Inputs of Circumneutral, Treated Coal Mine Drainage

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Abstract. Wymer Run Bog is a representative example of the naturally acidic *Sphagnum*-dominated wetlands that are scattered throughout the Appalachian coal mining region of West Virginia. This bog is situated downslope from a sediment pond associated with a coal surface mine. Sodium carbonate briquettes are used in the pond to raise the pH of the mine drainage water to between 6 and 9. For the past 3 years, a leak in the bank of the pond has served as a source of circumneutral, treated mine drainage water flowing into Wymer Run Bog. Initial observations showed that the area of the wetland receiving the treated mine drainage water was characterized by widespread death of the wetland vegetation, especially the *Sphagnum*, and *Polytrichum* mosses, and that the peat had been eroded down to mineral soil. Characterization of the surface topography within a 60x115 m study plot, together with a spatial analysis of surface water chemistry and a detailed vegetation sampling correlated the death of the vegetation with inputs of the treated mine drainage water. Laboratory studies indicated that *Sphagnum recurvum* grew well at pH 4, but at pH 8 the plants died in about 20 days. Observations from other wetlands indicated that *S. recurvum* can survive where untreated acid mine drainage enters a wetland, as long as the volume of the inputs is sufficiently low. The legal discharge of pH 6 to 9 treated mine drainage waters into *Sphagnum*-dominated wetlands is not consistent with the preservation of these naturally acidic ecosystems.

Introduction

Acid mine drainage continues to be a major environmental problem throughout the Appalachian coal mining region.[1,2] Although considerable attention has focused on the impact of acid mine drainage on aquatic ecosystems, relatively little work has addressed the interactions between mine drainage and freshwater wetlands. The distribution of coal mining regions in the Appalachian Region overlaps with the distribution of inland *Sphagnum*-dominated wetlands and their associated peat deposits.[3,4] Because of this overlap, it is inevitable that occasionally mining operations will influence wetland ecosystems.

Numerous small (5-50 ha) wetlands are distributed throughout the Appalachian Plateau Region of West Virginia.[5] These wetlands have an almost continuous cover of *Sphagnum* and *Polytrichum* mosses and have associated peat deposits. Surface waters are acidic (pH 4.0) and nutrient deficient. There are many structural and functional similarities between these wetlands and the more northern latitude bog ecosystems.[6,7,8] *Sphagnum*- dominated wetland ecosystems are variously affected by inputs of untreated acid mine drainage flowing from abandoned, unreclaimed coal mines. On the one extreme, conditions of high flow of acidic, solute laden drainage can cause the total devastation of a wetland, leaving behind scattered dead trees in a matrix of bright orange iron oxide deposits. On the other extreme, where the volume of untreated acid mine drainage entering a wetland is relatively low, processes within the wetland appear to mitigate the impact of mine drainage on stream water quality.[9,10]

Regulations established pursuant to the passage of the Federal Water Pollution Control Act of 1972 and the Clean Water Act of 1977, set water quality standards for any water discharged from a coal mine site. During the spring of 1983, we became interested in a surface mine site (Upper Freeport coal), operated by Buffalo Coal Company, where mine drainage was diverted to a pond and chemically treated with sodium carbonate briquettes to raise the pH to between 6 and 9 and to lower the Fe concentration to <5 mg/L. Downslope from this treatment pond was a *Sphagnum*-dominated wetland, Wyser Run Bog, that had been receiving inputs of this circumneutral, treated mine drainage water emanating from a leak in the pond bank. Visual inspection of the wetland revealed a swath of dead vegetation and eroded peat along the direction of the flow of this treated mine drainage water. Field and laboratory investigations were initiated to identify the factor or factors related to the destruction of Wyser Run Bog.

Methods

Field studies

Eight water sampling locations were established at the Wyser Run Bog site (Figure 1) to characterize the chemical composition of untreated and treated mine drainage, wetland water, and stream water. Water samples were collected at these locations on four occasions between April 12 and July 12, 1983. In addition, a 60x115 m study plot was established in Wyser Run Bog downslope from the leak in the bank of the sediment pond (Figures 1 and 2). The study plot was oriented such that the long axis of the plot bisected the area that was most visibly impacted by the input of water emanating from the leak in the pond bank. Using a transit and standard surveying techniques, the study plot was surveyed and a topographic map of the surface was generated from the elevation data using the SURFACE II Graphics System.[11] During the summer of 1983, the vegetation was censused in 1 m^2 quadrats placed at 2 m intervals along each of 12 parallel transect lines (Figure 2). In each quadrat, we estimated the percentage of the area occupied by dead vegetation, the percent cover of *Sphagnum* spp. *Polytrichum* spp, and each vascular plant species.[12]

Twenty-two water sampling stations were established within the study plot (Figure 2). A porous cup tube lysimeter was installed to a depth of 25 cm at each station. Surface and subsurface water samples were collected on May 23, 1983. On July 12, 1983 only subsurface water samples were collected; pools of surface water could not be found because of a low water table. All water samples were analyzed for pH and specific conductance immediately upon return to the laboratory and the remaining water was frozen for subsequent chemical analysis. Ca, Mg, and Fe concentrations were determined by atomic absorption spectrophotometry. Potassium and Na were determined by flame photometry, and NH_4^+ and $SO_4^=$ were measured colorimetrically on a Technicon Autoanalyzer.[13,14]

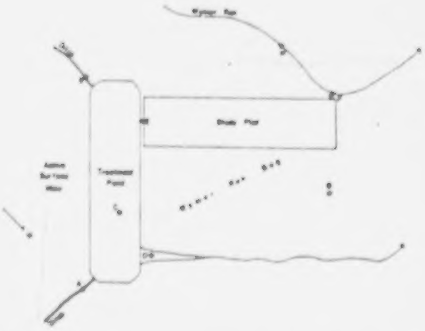
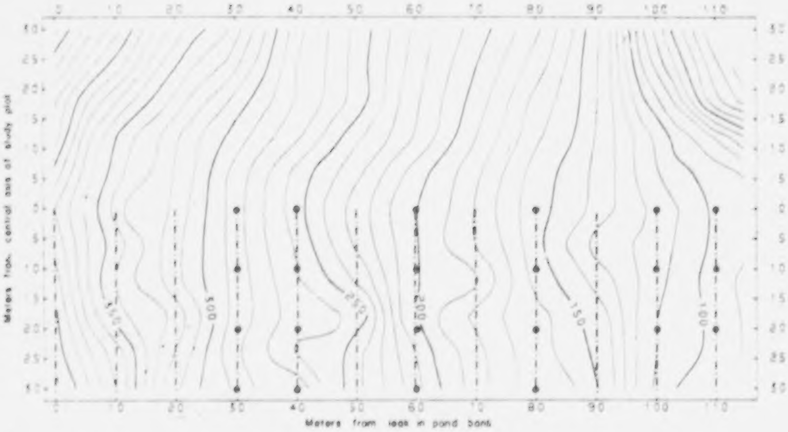


Figure 1. Schematic map of the Wyser Run study area (not to scale). Stars denote water sampling locations discussed in text.

Multiple linear regression was used to determine how much of the variation in percent cover of *Sphagnum*, *Polytrichum* and dead vegetation, and in each water chemical parameter could be explained by two factors: 1) the distance from the leak in the bank of the pond (x), and 2) the distance from the central axis of the study plot (y).

Laboratory studies

Sphagnum recurvum is the dominant species of *Sphagnum* in most of the high elevation Appalachian wetlands, including Wyser Run Bog.[7] A laboratory study was initiated to evaluate the growth response of *S. recurvum* to varying chemical conditions. Individual *S. recurvum* plants were cut to a length of 50 mm and 8 plants were placed into a 2.5 cm diameter, 3.5 cm tall PVC cylinder into which several holes had been drilled. Ten of these cylinders were placed into one of 6 glass dishes, and in each dish enough water of a particular chemical composition was added so that the water table was at the top of the cylinders. The 6 chemical treatments were: Wyser pond water taken from the sediment pond; Big Run stream water, collected from a naturally acidic, unpolluted mountain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250
200
150
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Meters from central axis of study plot
Meters from leak in pond bank

Figure 2. Topographic map of the Wymer Run Bog study plot. Contour intervals are 10 cm. Orientation is the same as in Figure 1. Dashed lines denote transects for vegetation sampling; solid circles denote water sampling stations.

stream draining Big Run Bog and its surrounding forested watershed; Big Run stream water plus Na_2CO_3 adjusted to a pH of about 8.0 using 1N HCl; Big Run stream water plus Na_2SO_4; Big Run stream water plus K_2CO_3 adjusted to a pH of about 8.0; and Big Run stream water plus K_2SO_4.[10] Evaporative water losses in each dish were replaced at 2-3 da intervals and the entire volume of water in each dish was replaced weekly. After 29 da, the plants were individually removed and measured for growth in length.

Results and Discussion

Field studies

The surface of Wymer Run Bog has a slope of slightly less than 3%, dropping about 275 cm within 100 m of horizontal distance (Figure 2). The contours in Figure 2 clearly indicate that the water emanating from the leak flows along the central axis of the study plot before turning to the west and draining into Wymer Run.

Water entering the sediment pond via the drainage ditches (locations A and B, Figure 1) was acidic and had high concentrations of Ca, Mg, and $SO_4^=$, but Fe concentrations were not particularly high (Table 1). The Ca and Mg could have been contributed by the weathering of either the calcareous Bolivar shale or the Upper Freeport limestone, thin strata which commonly underlie the Upper Freeport coal.[15] Chemically, the composition of the mine drainage water entering the pond was fairly typical of drainage associated with surface mining of the Upper Freeport coal.[9,10] Although sodium carbonate briquettes were primarily used to treat the pond water, occasionally the pond was injected with anhydrous ammonia. Thus, the water in the pond (location C) and that leaving the pond by either the designed outflow (location D) or the leak in the bank (location E) had high pH and elevated concentrations of Na and NH_4^+ relative to the input water. The water draining from the wetland into Wymer Run (location F) had a notably lower pH and lower concentrations of ions than the water emanating from the leak. Some of the differences between locations E and F could have been the result of mixing of leak-derived water with water originating from relatively unaffected areas of the wetland. Water in an area of Wymer Run Bog that has not been subjected to inputs of treated mine drainage water (location G) had a chemical composition similar to that of Big Run Bog, a wetland that has never been impacted by mining activity (Table 1).[8] Finally, the chemical composition of Wymer Run upstream from any influence of the mining activity (location H) was very similar to that of Big Run. The pH, specific conductance, and ionic concentrations in Wymer Run and Big Run are typical of streams draining primarily sandstone-based watersheds in the Appalachian Plateau Region of West Virginia.[10]

The plant species composition within the study plot at Wymer Run Bog (Table 2)

Table 1. Chemical composition of water from the Wymer Run site at the 8 locations shown in Figure 1, and mean values from the 22 surface and subsurface water sampling stations in the Wymer Run Bog study plot (Figure 2). For comparison, data for surface and subsurface waters in Big Run Bog and for Big Run stream water are given.[7,10] Specific conductance values are in uS/cm.

			Concentration (umol/L)						
Water Source	pH	Specific Conductance	Ca	Mg	K	Na	NH_4^+	Fe	$SO_4^=$
Wymer Run site									
A	4.58	762	4925	1398	84	464	58	43	8091
B	3.55	897	2933	1347	31	40	44	65	7623
C	7.64	1207	5300	1059	78	4135	1126	6	7405
D	7.84	1119	4384	991	80	4119	1060	3	7831
E	6.27	994	3850	897	102	3317	550	11	7123
F	4.96	220	714	191	38	309	54	1	1161
G	4.02	54	54	38	29	64	12	6	234
H	4.48	20	32	19	9	16	7	1	51
Wymer Run study plot									
Surface water	3.78	417	1245	334	54	673	115	10	2165
Subsurface water	4.53	160	111	86	31	597	97	167	741
Big Run Bog									
Surface water	4.02	32	19	9	10	8	9	11	70
Subsurface water	4.79	27	21	12	14	17	65	17	43
Big Run stream water	3.91	35	21	13	9	9	1	6	83

Table 2. Species list for the Wymer Run Bog study plot. For each species, the frequency of occurrence in 145 quadrats is given.

Trees, upright shrubs, and low, trailing shrubs		Herbaceous species	
Pyrus arbutifolia	57	*Glyceria striata*	103
Vaccinium angustifolium	50	*Solidago uliginosa*	69
Rubus hispidus	46	*Juncus brevicaudatus*	62
Vaccinium myrtilloides	20	*Eriophorum virginicum*	61
Picea rubens	10	*Juncus effusus*	30
Betula lutea	9	*Carex stricta*	19
Kalmia latifolia	4	*Osmunda cinnamomea*	14
Vaccinium oxycoccos	3	*Carex trisperma*	11
Gaultheria hispidula	2	*Agrostis alba*	7
Gaultheria procumbens	2	*Agrostis hyemalis*	6
Viburnum cassinoides	2	*Carex brunnescens*	5
Hypericum densiflorum	2	*Carex canescens*	5
Pyrus americana	1	*Holcus lanatus*	4
Acer rubrum	1	*Anthoxanthum odoratum*	2
Gaylussacia baccata	1	*Drosera rotundifolia*	2
		Rhynchospora alba	1
		Gentiana linearis	1
Mosses		*Maianthemum canadense*	1
		Epilobium coloratum	1
Polytrichum spp.	124	*Carex gynandra*	1
Sphagnum spp.	113	*Spiraea tomentosa*	1

was similar to that of other *Sphagnum*-dominated wetlands in the Appalachian Plateau Region of West Virginia.[6,7,16] However, much of the vegetation in the study plot had been killed. On the average, 27% of the area was covered by dead vegetation, with the most devastation occurring along the main axis of the study plot. Within in the study plot, *Sphagnum* and *Polytrichum* covered an average of only 27 and 14%, respectively, in contrast to other Appalachian wetlands where *Sphagnum* and *Polytrichum* mosses typically cover 90% or more of the wetland surface. A significant proportion of the variance in the percent cover of *Sphagnum*, *Polytrichum*, and dead vegetation was explained by distance from the leak in the pond bank and/or distance from the central axis of the study plot (Table 3). In the field, it was evident that erosion had followed the demise of the moss cover. Much of the area nearest the leak in the pond bank consisted of small hummocks of organic peat surrounded by mineral soil in the hollows where the peat had eroded away. Often the mosses on these small hummocks were either dead or visibly in poor health.

In the area of the study plot nearest the pond, *Agrostis alba*, *Anthoxanthum odoratum*, and *Holcus lanatus* were encountered. These species are not typical inhabitants of Appalachian *Sphagnum*-dominated wetland ecosystems, but rather are more commonly associated with pastures and moist meadows.[12] *Agrostis alba* is a component of the seed mixture that was used by Buffalo Coal Company to vegetate the pond bank. The continued presence of these three species within the study plot attests to the alteration of the substrate (namely the conversion from organic to mineral soil) in Wymer Run Bog.

Mean ionic concentrations in the surface and subsurface water in the Wymer Run Bog study plot were considerably elevated compared to water at Big Run Bog (Table 1). Despite the input of high pH water into Wymer Run Bog the mean pH of the wetland surface water was quite acidic and not that much different from the pH of Big Run Bog surface water. Within the Wymer Run Bog study plot, surface water pH ranged from 3.5 to 4.8 and actually increased (H^+ decreased) as water flowed through the study plot (Table 3). Our water sampling stations began 30 m away from the leak in the pond bank. Acidification of the high pH water emanating from the leak had apparently taken place upslope from our sampling stations. Some acidification could have resulted from mixing of the leak-derived water with other acidic water at the site (see Table 1). In addition, physicochemical reaction of water in shallow pools with remaining, uneroded *Sphagnum*-derived peat could have contributed to surface water acidification.[17]

Besides H^+, the concentrations of all other measured cations and anions exhibited spatial variation in the Wymer Run Bog study plot. Between 40 and 68% of the variation in the concentrations of these ions was explained by distance from the leak in the pond bank and/or by distance from the central axis of the study plot (Table 3). Decreasing ionic concentrations as a function of these two distance variables was probably not attributable to dilution alone, since all of the cations and anions did not exhibit a qualitatively or quantitatively similar distance response. For subsurface water, distance effects explained a significant amount of the variation for Na and $SO_4^=$ only (Table 3).

To evaluate whether there was a causal link between the spatial patterns in vegetation and in water chemistry, Na concentration in surface water was used as an indicator of the extent to which chemically treated mine drainage water had impacted any point within the study plot. Sodium was chosen because of its relative biological inertness, because it is not bound to peat by exchange as readily as other cations, and because the regression equation in Table 3 explained 64% of the variation in Na concentration in surface water.[18] Thus, based on the 22 water sampling stations, a reasonable estimate of the Na concentration could be obtained for each of the 145 vegetation quadrats. Nonparametric Spearman's correlations between estimated Na concentration and the percent cover of *Sphagnum*, *Polytrichum*, dead vegetation, and for each of the species in Table 2 that occurred in 10 or more quadrats were evaluated as a test of whether input of treated mine drainage water had effected the vegetation.[19] This analysis indicated that the abundance of *Sphagnum*, *Polytrichum*, *Pyrus arbutifolia*, *Vaccinium angustifolium*, and *Eriophorum virginicum* significantly declined with increasing influence of the treated mine drainage water (Table 4). In contrast, the percent cover of *Rubus hispidus* and dead vegetation significantly increased with increasing influence of treated mine drainage water. The input of treated mine drainage water into Wymer Run Bog has influenced the distribution of individual species, and thus has influenced plant community structure within the wetland.

Laboratory studies

Since the main treatment of the mine drainage water was by sodium carbonate briquettes, our laboratory experiment was designed to evaluate the influence of high versus low Na and high versus low pH on *S. recurvum* growth. The chemical composition of the treatment waters is given in Table 5. Our data indicated that plants in unmanipulated Big Run stream water grew the most, while those in the high pH, manipulated Big Run stream water grew the

Table 3. Multiple linear regressions of vegetation, peat, surface water, and subsurface water characteristics (Z) as a function of distance from the leak in the pond bank (x) and distance from the central axis of the study plot (y). The form of the equation is $Z = a + bx + cy$. Only significant ($p \leq 0.05$) results are shown. R^2 is the proportion of the variance explained by the regression. Asterisks by parameters b or c indicate that the estimate is significantly ($p \leq 0.05$) different from zero (t-test).

Characteristic (Z)	Regression parameter a	b	c	R^2
Vegetation (% cover)				
Dead	53.8	0.07	-2.48*	.34
Sphagnum spp.	0.78	-0.05	2.36	.36
Polytrichum spp.	-1.95	0.07*	0.99*	.23
Surface water (5/23/83)				
pH	3.34	.0083*	-.0019	.43
H^+	341	-2.51*	0.11	.49
Ca	2462	-8.58	-58.6*	.62
Mg	591	-1.94	-11.5*	.53
K	81.4	-0.29*	-0.72*	.54
Na	1472	-7.05*	-29.3*	.64
NH_4^+	320	-2.14*	-5.26*	.68
Fe	27.8	-0.22*	-0.25	.40
$SO_4^=$	4208	-15.6*	-91.0*	.63
Subsurface water (5/23/83)				
Na	1539	-11.0*	-14.0*	.61
$SO_4^=$	2708	-20.7*	-46.4	.52
Subsurface water (7/12/83)				
Na	1348	-7.48*	-17.9	.56
$SO_4^=$	2743	-21.0*	-34.2	.51

Table 4. Spearman correlations between percent cover (of individual species and of dead vegetation) and Na concentration in surface water, where Na concentration is used as an indicator of the relative magnitude of the influence of chemically treated mine drainage water. The p values are the probability of obtaining either a higher or lower correlation coefficient; asterisks denote significance at $p \leq 0.05$.

Percent cover of:	Spearman correlation coefficient	p
Polytrichum spp.	-.514	<.001*
Sphagnum spp.	-.501	<.001*
Pyrus arbutifolia	-.235	.004*
Vaccinium angustifolium	-.265	.001*
V. myrtilloides	-.073	.382
Picea rubens	-.001	.988
Glyceria striata	.148	.076
Solidago uliginosa	-.060	.477
Juncus brevicaudatus	-.077	.359
Eriophorum virginicum	-.465	<.001*
Rubus hispidus	.430	<.001*
Juncus effusus	.108	.196
Carex stricta	.080	.337
Osmunda cinnamomea	.025	.769
Carex trisperma	.051	.541
Dead vegetation	.320	<.001*

Table 5. Chemical composition of the 6 types of treatment water used in the *Sphagnum* growth experiment and of the corresponding capitulum leachates derived from distilled water extractions.

	pH	Concentration (umol/L)					
		Ca	Mg	K	Na	Fe	$SO_4^=$
Treatment water							
Wymer pond	8.1	6162	790	132	5298	0	7820
Big Run stream	4.1	15	11	13	25	13	66
Big Run + Na_2CO_3	8.1	19	21	15	4598	81	87
Big Run + Na_2SO_4	4.3	20	14	8	4550	21	2335
Big Run + K_2CO_3	8.2	20	23	4614	30	62	83
Big Run + K_2SO_4	4.3	16	18	4814	17	21	2336
Capitulum leachate							
Wymer pond	7.0	12005	5466	1748	34025	23	38038
Big Run stream	3.2	308	160	279	347	57	927
Big Run + Na_2CO_3	9.5	51	34	934	21915	68	1191
Big Run + Na_2SO_4	3.6	251	86	206	20400	46	10778
Big Run + K_2CO_3	9.5	51	47	22592	397	80	1076
Big Run + K_2SO_4	3.7	219	96	21948	397	16	10674

least (Table 6). Growth in length, however, may not have been the most revealing measure of the response of *Sphagnum* plants to the various chemical treatments. Regular visual inspection indicated that plants in the Big Run stream water, Big Run + Na_2SO_4, and Big Run + K_2SO_4 treatments remained alive and healthy throughout the entire 29 days. In marked contrast was the response of the plants in the Big Run + Na_2CO_3 and Big Run + K_2CO_3 treatments. After 12 days, these plants became brown in coloration, the tips of the leaves turned black, and death appeared imminent. After 19 days, all plants in these treatments were devoid of green coloration and appeared to be dead. Surprisingly, plants subjected to the Wymer pond water treatment not only remained alive, but also took on a much brighter green coloration than the plants in any of the other 5 treatments. The response of the Wymer pond plants was similar to that observed when rock phosphate was field applied to a bog.[20] There, *Sphagnum* plants turned "apple-green" and also grew in length considerably more than plants in untreated areas of the bog. Unfortunately, we did not measure phosphate in any of our water samples. There may have been sufficient phosphate in the Wymer pond water to allow the *Sphagnum* plants to survive at high pH in the laboratory, however, this response was not at all evident in the field.

In the laboratory growth experiment, crystals formed on the tips of the plant capitula. These crystals were particularly evident on the plants growing in the Wymer pond water and, we have also observed them on plants growing in the field at Wymer Run Bog. At the end of the growth experiment, the top 1 cm from 10 randomly selected plants from each treatment were placed in 150 mL of distilled, deionized water, stirred for 2 h, and filtered. The chemistry of the resulting leachates is shown in Table 5. The crystals seemed to be a mixture of Ca, Mg, K, and Na carbonates and sulfates; the relative importance of any particular cation or anion was determined by the chemistry of the treatment water in which the plants were growing. Individual plants were apparently acting as wicks and crystal formation was the result of evaporative concentration.

Table 6. Mean length of *Sphagnum recurvum* plants after 29 days. Standard deviations were less than 15% of the mean. Values with the same letter superscript do not differ significantly (LSD, $p = 0.05$).

Treatment	Final Length (mm)
Big Run stream	73.0^a
Big Run + Na_2SO_4	67.4^b
Wymer pond	65.2^c
Big Run + K_2SO_4	61.6^d
Big Run + K_2CO_3	60.3^d
Big Run + Na_2CO_3	60.0^d

It has long been recognized that variation in surface water chemistry, and in particular pH and Ca concentrations, is closely related to patterns in wetland vegetation and plant community distribution.[21,22] More importantly, the distribution of individual species of *Sphagnum* in the field is closely related to pH gradients.[18,23,24] *S. recurvum* grows in areas where the surrounding water is quite acidic, with pH values ranging from 3.4 to 4.8.[25,26] Detailed laboratory studies on the growth of 14 species of *Sphagnum* in response to pH and Ca concentration concluded that high pH and high Ca were not individually injurious, but in combination were lethal to most of the species examined, including *S. recurvum*.[27]

Sphagnum species are sensitive not only to the pH of the surrounding water, but also to the concentrations of inorganic sulfur. The growth of some species of *Sphagnum* is inhibited by moderate to high concentrations of sulfate and bisulfite, but *S. recurvum* is one of the most tolerant species.[28] Both laboratory and field evidence suggest that *S. recurvum* can grow quite well in the low pH, high sulfate conditions associated with and acid mine drainage. In a laboratory study, *Sphagnum* (mostly *S. recurvum*) plants remained alive and green throughout 50 days of watering with untreated acid mine drainage waters with pH values ranging from 2.7 to 3.5.[29] In the field, we have often seen the invasion of *S. recurvum* and the development of small wetlands in depressions on unreclaimed surface mines where surface water pH is less than 3.5. Other evidence is derived from Tub Run Bog, wetland which is bordered by an abandoned unreclaimed (Upper Freeport) coal surface mine. We have measured a pH as low as 2.2 in the drainage that flows from the surface mine into Tub Run Bog. The vegetation at Tub Run Bog is similar to that at the unaffected Big Run Bog, and *S. recurvum* is abundant at Tub Run Bog even where mine drainage enters the wetland.[7] Certainly, there is a limit to the loading of untreated acid mine drainage that *Sphagnum*-dominated wetlands can withstand without exhibiting deleterious effects. However, with sufficiently low loading, these wetlands not only may persist on the landscape, but also may act to improve the chemical quality of untreated acid mine drainage waters.[9,10]

Conclusions

Sphagnum-dominated wetlands are naturally acidic ecosystems, with a typical surface water pH of 4.0. These wetlands are distributed throughout the Appalachian Plateau Region of West Virginia, an area which also supports considerable coal mining activity. Our results from Wyser Run Bog have indicated that inputs of circumneutral, chemically treated coal mine drainage into the wetland has resulted in dramatic alteration of surface water chemistry, the death of *Sphagnum* and *Polytrichum* mosses, subsequent erosion of the peat and an alteration of the natural plant community structure. We have no reason to believe that the results from Wyser Run Bog are not generalizable to other wetlands as well. The legal discharge of pH 6 to 9 treated acid mine drainage waters into *Sphagnum*-dominated wetlands is a phenomenon that is neither reconcilable nor consistent with the preservation of these naturally acidic ecosystems.

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References

1. Appalachian Regional Commission. 1969. Acid mine drainage in Appalachia. Congressional House Document No. 91-180.

2. Barton, P. 1978. The acid mine drainage. Pages 313-358 in J.O. Nriagu, editor. Sulfur in the environment. John Wiley & Sons, New York.

3. Cameron, C.C. 1968. Peat. Pages 136-145 in Mineral resources of the Appalachian Region. U.S. Geological Survey Professional Paper 580.

4. Trumbull, J. 1979. Coal Fields of the United States. U.S. Geological Survey, Reston, Virginia.

5. McDonald, B.R. 1982. Wetlands of West Virginia. Location and classification. West Virginia Department of Natural Resources, Wildlife and Natural Heritage Data Base, Elkins, West Virginia.

6. Wieder, R.K., A.M. McCormick, and G.E. Lang. 1981. Vegetational analysis of Big Run Bog, a nonglaciated *Sphagnum* bog in West Virginia. Castanea 46: 16-29.

7. Walbridge, M.R. 1982. Vegetation patterning and community distribution in four high-elevation headwater wetlands in West Virginia. M.S. Thesis. West Virginia University, Morgantown.

8. Wieder, R.K. 1982. Biogeochemical relationships in *Sphagnum*-dominated wetlands in West Virginia. Ph.D. Dissertation.

West Virginia University, Morgantown.

9. Wieder, R.K. and G.E. Lang. 1982. Modification of acid mine drainage in a freshwater wetland. Pages 43-53 in B.R. McDonald, editor. Symposium on Wetlands of the Unglaciated Appalachian Region. West Virginia University, Morgantown.

10. Wieder, R.K. and G.E. Lang. 1984. Influence of wetlands and coal mining on stream water chemistry. Water, Air, and Soil Pollution 23. In press.

11. Sampson, R.J. 1978. Surface II graphics system. Revision I. Series on spatial analysis. Number 1. Kansas Geological Survey, Lawrence, Kansas.

12. Strausbaugh, P.D. and E.L. Core. 1970. Flora of West Virginia. Second edition. West Virginia University, Morgantown.

13. Technicon Industrial Systems. 1977. Industrial methods No.98-70W/A, No. 240-72W. Technicon Industrial Systems, Tarrytown, New York.

14. Cronan, C.S. 1979. Determination of sulfate in organically colored water samples. Analtyical Chemistry 51: 1333-1335.

15. Reger, D.B. 1923. County reports. Tucker County. West Virginia Geological Survey.

16. Walbridge, M.R. and G.E. Lang. 1982. Major plant communities and patterns of community distribution in four wetlands of the unglaciated Appalachian Region. Pages 131-142 in B.R. McDonald, editor. Symposium on Wetlands of the Unglaciated Appalachian Region. West Virginia University, Morgantown.

17. Clymo, R.S. and P.M. Hayward. 1982. The ecology of *Sphagnum*. Pages 229-289 in A.J.E. Smith, editor. Bryophyte ecology. Chapman and Hall, New York.

18. Clymo, R.S. 1963. Ion exchange in *Sphagnum* and its relation to bog ecology. Annals of Botany, N.S. 27: 309-324.

19. Conover, W.J. 1980. Practical nonparametric statistics. Second edition. John Wiley & Sons, New York.

20. McVean, D.N. 1959. Ecology of *Alnus glutinosa* (L.) Gaertn. VII. Establishment of alder by direct seeding of shallow blanket bog. Journal of Ecology 47: 615-618.

21. Moore, P.D. and D.J. Bellamy. 1974. Peatlands. Springer-Verlag, New York.

22. Vitt, D.H. and N.G. Slack. 1979. An analysis of the vegetation of *Sphagnum*-dominated kettle-hole bogs in relation to environmental gradients. Canadian Journal of Botany 53: 332-359.

23. Conway, V.M. 1949. The bogs of central Minnesota. Ecological Monographs 19: 173-206.

24. Rose, F. 1953. A survey of the ecology of the British lowland bogs. Proceedings of the Linnaean Society of London 164: 186-211.

25. Horton, D.G., D.H. Vitt, and N.G. Slack. 1979. Habitats of circumboreal sphagna: I. A quantitative analysis and review of species in the Caribou Mountains, northern Alberta. Canadian Journal of Botany 57: 2283-2317.

26. Vitt, D.H., H. Crum, and J.A. Snider. 1975. The vertical zonation of *Sphagnum* species in hummock-hollow complexes in northern Michigan. The Michigan Botanist 14: 190-200.

27. Clymo, R.S. 1973. The growth of *Sphagnum*: some effects of environment. Journal of Ecology 61: 849-869.

28. Ferguson, P., J.A. Lee, and J.N.B. Bell. 1978. Effects of sulfur pollutants on the growth of *Sphagnum* species. Environmental Pollution 16: 151-162.

29. Tarleton, A.L., G.E. Lang, and R.K. Wieder. 1984. Removal of iron from acid mine drainage by *Sphagnum* peat: Results from experimental laboratory microcosms. Proceedings of the National Symposium on Surface Mining, Hydrology, Sedimentology and Reclamation, Lexington, Kentucky.

[Mr. Fisher's and Mr. Whitehouse's prepared statement follows:]

U. S. HOUSE OF REPRESENTATIVES

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

SUBCOMMITTEE ON WATER RESOURCES

CLEAN WATER ACT HEARINGS

STATEMENT

ON BEHALF OF

THE MINING AND RECLAMATION COUNCIL OF AMERICA

AND THE

PENNSYLVANIA COAL MINING ASSOCIATION

WILSON FISHER, PRESIDENT
HESS & FISHER ENGINEERS
CLEARFIELD, PENNSYLVANIA

ALFRED E. WHITEHOUSE, ENVIRONMENTAL ENGINEER
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BAYARD, WEST VIRGINIA

APRIL 30, 1985

INTRODUCTION

The following statement is submitted on behalf of the Mining and Reclamation Council of America, whose member companies produce approximately 60 percent of the Nation's coal, and the Pennsylvania Coal Mining Association consisting of over 160 coal companies.

The coal industry has made tremendous strides in improving reclamation technology and abating previous mining problems while assisting the national interest of energy independence. However, impediments to this effort are many--some of which take their origin in the Clean Water Act. The following statement, speak to some of these prohibitions.

Remining

The membership of MARC and PCMA strongly support Section 20 of H.R.8 and Section 11 of H.R.2090, which provide a limited modification from effluent standards for pre-existing discharges from previously mined areas.

Nationally we have in excess of 1.5 million acres of abandoned mine lands that have not been reclaimed to standards required by the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The vast majority of these lands and the streams adversely affected by sediment or acidity from such abandoned operations are located in the Appalachian region. The abandoned mine land (AML) program created under Title IV of SMCRA established a fund to reclaim these sites where there is no continuing reclamation responsibility under federal or state law. The AML fund is generated via collection of a reclamation fee levied on coal operators of 35 cents per ton for surface mined coals and 15 cents per ton for undergroung mining operations. Fee collection began in 1978 and will continue through 1992 with anticipations of yielding approximately $3 billion. These resources, however, are inadequate to deal with the full magnitude of the AML problem.

Conservative estimates indicate that 40-45 percent of these lands contain additional reserves that can be mined today with economic and land reclamation benefits if a limited modification from the applicable effluent limits is enacted (such as in H.R.8 and H.R.2090). Additionally, these percentages will continue to rise as virgin lands become more scarce and extraction processes become more efficient. The direct problem currently facing the coal mining industry is that many of these sites have pre-existing mine discharges far in excess of the currently required standards. The present disincentive to remining stems from regulations written by EPA as compelled by the Clean Water Act. These regulations assign a permanent water treatment liability (to meet effluent limits) to the current mine operator for all pre-existing discharges encountered when entering the previously mined area. This is potentially a great financial expense and uncertainty to those operators who are willing to accept the burden of reclaiming the land, but many times the effluent limits are technically impossible to meet on these sites. If the present effluent limits continue to be applied to the remining of AML's, most of these lands will never be reclaimed considering the status of the AML fund and the Federal deficit. As such, these sites will continue in perpetuity to pollute, and degrade the aesthetics of the environment. It is for these reasons that we wish to see a provision such as in section 22 of H.R.8 or Section 11 of H.R.2090 added to the Act. They acknowledge the uniqueness of the AML problem and provide a limited modification from current effluent limits in favor of a policy of non-degradation of the water quality present at the time of initial remining efforts. Additionally, they provide for substantial health and safety benefits by requiring operations to meet all other SMCRA standards.

It is interesting to note that when federal funds are used to reclaim an abandoned mine site under the Office of Surface Mining's AML program, liability is not assessed. So if, in fact, reclamation is not 100% successful in restoring water quality to effluent limitations the water treatment liability is not assessed to the person who does the work, because it was a federal project to reclaim the site on a contractual basis. The legal trigger mechanism seems to be the distinction between remining in which coal is extracted, versus reclamation in which only land rehabilitation is accomplished. We do not believe this is a reasonable double standard and is, in fact, contrary to SMCRA which states that maximum coal recovery is a national goal. By allowing the mining industry the same provision we could save the taxpayer and/or ratepayer billions of dollars and could begin cleanup in the near future. The Pennsylvania Department of Natural Resources has estimated that provisions such as these could save the state approximately $75 million annually and permit AML monies to be focused on sites unable to be economically remined, ensuring a more effective and complete cleanup effort.

The concept of remining has many proven and potential benefits; social, economic, and environmental, which need to be expressed so as to convey the importance and scope of this issue.

In many areas, especially in the East, virgin lands are becomming scarce. As these lands continue to decrease we will feel an increase of unemployment in established mining communities and will see some communities relocating to areas where virgin lands and coal reserves can be found and recovered. This relocation will cause not only economic hardship for those persons and businesses directly involved, but also those counties and states from which they leave. It is a well known fact that the money multiplier in coal areas is substantially higher than the national average and, therefore the ramifications become far reaching. By allowing remining and reducing relocation it will allow us and associated businesses to amortize capital costs of immobile equipment, buildings, transportation services such as train lines and other shipping services, tipple and processing plants, and many other areas where long term financial commitments have been made. Avoiding relocation will also keep us from having to experience the enormous costs of new structures and equipment which would be necessary in the areas of virgin reserves, and therefore keep coal prices competitive. Many, if not most, small operators and businesses facing the dilemma could not afford to move and would go bankrupt. Even if relocation is financially viable for the operator, etc., the process is a social hardship. It is a well recognized fact that coal communities are very close knit groups where friend and family ties form the backbone. The high unemployment and relocation potential threatens to disrupt if not destroy this important aspect. Remining, however, will reduce potential unemployment while putting many of the unemployed coal mining industry people back to work. Remining will, therefore, help to reduce the disproportionate unemployment rate facing this industry, and will help ameliorate the potential social/psycological problems.

There are a number of provisions in SMCRA and its regulations designed to protect the quality of water in areas where surface coal mining operations are being conducted. The Act reflects the understanding that there is likely to be some disruption to water quality and quantity during the actual mining process. The operator, whether proposing a new or remining operation, is required to submit in his permit application a determination of the probable hydrologic consequences of the operation on surface and groundwater quantity and quality. This will be based on baseline hydrologic, geologic and other information collected as part of the permit application. The baseline hydrologic data which is collected for a minimum of six months prior to mining is sufficient to show seasonal variations in quantity and quality. It addresses acid forming and potentially toxic materials which could contaminate surface or groundwater. The regulatory authority then performs a cumulative hydrologic impact assessment based upon previous and predicted mining operations. In addition, there are numerous other performance standards to ensure proper reclamation and protection of public health and safety.

The areas industry chooses and is permitted to remine would be subject to SMCRA for all aspects of mining and reclamation. These lands will be recontoured, revegetated, and otherwise reclaimed to current standards in addition to recovering the additional coal, at no expense to the tax payer. Benefits will be in the form of aesthetic beautification, minimization of erosion and sedimentation, increased land stability, elimination of highwalls and pits, etc. These actions in most cases will in themselves improve the quality of the water. Many of the water problems stem from use of mining methods which are now illegal. Through remining, using currently acceptable practices, it is possible to alleviate, partially and often fully, the source and/or quantity of the bad water. In addition, much of the bad water is caused by water flowing through exposed spoil piles, open coal seams, or runoff over bare ground. During remining operators will remove the coal, properly cover, grade, revegetate the spoil, as well as grade and revegetate the entire site. Overall, this will reduce particulate contributions and reduce contact between water and acid bearing materials. The quantity of acid producing material left exposed after remining will be substantially less and, therefore, the remaining water flows (if any) will be less acidic and of better overall quality.

As stated earlier, we are in support of the remining provision of H.R.8. The language incorporated therein reflects a compromise worked out last year between the coal mining industry and the environmental community.

Additionally, we support the coal remining amendment proposed by the Administration (EPA) in H.R.2090. Two modifications of EPA's proposal would further the effort while ensuring that the best reclamation would be accomplished.

The first is to determine levels in the pre-existing discharge by considering both the concentration and the flow of the discharge so that mass loadings may be calculated. The mass loading of pollutants is the most important factor in determining whether there has been an improvement or, at a minimum, no-degredation of the pre-existing conditions. Our concern is that EPA's proposal, as written, relies on effluent limitations which only address half the information - concentrations. The deletion of quantity prevents the assessment of the real impact of a pre-existing or post-mining discharge and severely limits the incentive to remine that their proposal hopes to provide.

The second modification to EPA's proposed amendment would be to expand the term "pre-existing discharge" in Section 301 (o)(2)(B) to include non-point source discharges as well as point source discharges. Very often, the pre-existing discharge from an abandoned mine is a zone of seepage rather than a clearly defined point. This type of discharge is often found at the toe of abandoned spoil piles and from abandoned highwalls. These discharges are not point sources as defined by Section 502 of the Clean Water Act, but they should be included in this remining provision due to the adverse environmental impacts they cause. By excluding zones of seepage from such remining provisions, the incentive to remine is significantly reduced.

INTERMITTENT AND LOW FLOW STREAMS

Section 303 of the Clean Water Act requires states to adopt water quality based standards for intrastate waters. In implementing these standards, states have traditionally applied them to all streams including intermittent and low flow streams. Most times, these applications were made with little or no field studies or field generated data to determine whether these criteria are appropriate. In many instances this has caused mining operations and facilities to install water pollution controls beyond BAT on (1) discharges into intermittent streams where the effluent is the sole or primary source of flow and (2) discharges into low flow streams where a substantial percentage of flow could be effluent. Application of such control technology is unnecessary and economically inefficient.

A discharger must agree to install a specified level of pollution abatement technology; either BAT or BCT, in order to comply with the Clean Water Act (CWA). Additionally, the discharger must show that its effluent will not adversely effect the water quality values associated with the designated use of the receiving water. These values are protected by water quality based standards, stated in terms of concentrations of a pollutant in a stream.

In streams with a constant natural flow of water, water quality-based standards make sense. The water body will have a particular use year round, associated with certain water quality values. Compliance with water-quality based standards is measured at certain points in the stream after the discharged pollutants have mixed with the stream waters and these values are to be met year round.

Intermittent streams have no natural flow during dry conditions. In such periods, effluent from the discharger becomes the stream flow. The current law says that any flow (whether it is natural or from a discharge) must meet water-quality-based standards and, in virtually every case, these water quality standards are more stringent than technology-based effluent limits.

Imposition of water-quality-based standards on discharges into intermittent streams has forced industry to install control facilities well beyond those required to meet technology based effluent limitations (including BAT). EPA has exacerbated the situation by requiring the states to adopt water-quality-based standards reflecting the highest designated use, despite the fact that the discharges can meet the most stringent technology-based effluent limitations (including those promulgated for toxics) and that natural conditions prevent the stream from being fishable and swimmable.

This problem is particularly acute in the Appalachian Mountains and the West, in the upper watersheds of streams which, by their nature, are intermittent. During drought conditions, little if any flow can be found in these streams. When this occurs, water-quality-based standards applicable to such streams are frequently imposed as effluent limitations.

Water quality standards are almost always more stringent than effluent standards developed by EPA under Sections 301 through 304 of the Act. The concept of applying these stringent water quality standards as end-of-pipe limits has never been justified as feasible. Water-quality-based standards should be applied at the confluence of the intermittent stream with a perennial stream (i.e., one with a natural flow of water throughout the year) instead of being applied at the discharge point into the intermittent stream. This would assure the protection of the perennial stream.

It should be recognized there may be occasions where certain intermittent streams require additional protection through effluent limitations more stringent than present technology based treatment levels prescribed by EPA. These are infrequent cases and should be handled when and as they arise in the best manner to avoid environmental problems.

A second important issue is the prohibition that stems from the act which limits the quantity of the discharge or prohibits it entirely, even when the discharge is in complete compliance with the prescribed effluent limits. For example, if a receiving stream's flow goes from 1,000 gallons per minute (gpm) at one point in time to 100 gpm during a drought, the permit would require a discharge cutback of 9/10 from the facility even though the discharge may be conforming to the effluent standards. The discharge into the stream is limited to some fractional percentage (usually 1/6) of the total flow of receiving stream. Under this scenario, if the stream dries up, then discharges are not permitted at all, even if the water meets the effluent limits.

These conditions subject the facility to great uncertainty and to substantial costs incurred in building effluent storage facilities. Additionally, this type of quantity prohibition may create unnecessary hardships on a stream's life forms and downstream water users, since clean waters are being required to be stored upstream. During periods such as droughts, it would seem that this is contrary to better judgment. It is especially during these periods that stored, clean water should be released. This supplement to the natural flows would help sustain the aquatic/biotic life of the stream and guarantee more water for downstream users and uses.

It is MARC's belief that the Clean Water Act must be amended to address the concerns expressed above. MARC supports the concept of technology based effluent standards for discharges into low flow and intermittent streams. Congress should amend the CWA to make it clear that, except in limited instances, states should not apply water quality based standards to streams having intermittent and low flows. States should apply limits beyond technology based effluent limitations to intermittent streams on a case-by-case basis and only where there is demonstrated environmental benefit from the added control. Additionally, the Congress should amend the Act to preclude any limitation on (1) the overall quantity of a discharge or (2) the percentage contribution of effluents to water flows; as long as such waters meet effluent and/or water quality based standards.

The intermittent and low flow stream problems can be remedied by modifying the definition of "navigable waters" in the Act. The overly broad definition severly constrains the preparation of mining plans and control technology for mining through and then restoring intermittent and ephemeral waterways. Even though the capability to mine through these waterways and to reconstruct them to their premining condition is technically proven. The terms "interstate waters," "intrastate waters," "navigable waters," and "waters," should include only those waters with a constant, nonintermittent natural flow, and those low flow streams with a natural average discharge of greater than five (5) cubic feet per second, in order to recognize the true uniqueness of mining situations referenced above.

In this regard MARC recommends an amendment to the Act to qualify the term "navigable waters" as:

> "shall exclude waters that do not support a diversified fish, shellfish or wildlife population; do not provide water to downstream users; do not flow into other water bodies, and for which the annual flow is less than five (5) cubic feet per second."

pH Effluent Limit

The members of MARC have found that the EPA developed effluent limits for water quality have been, at times, incompatible with the natural characteristics of the receiving streams and that these effluent limits fail to take into consideration the water quality baseline conditions. Promulgated effluent standards must be more flexible and provide a range of limits which are sensitive to natural background conditions and protect the present use. In some instances, the effluent limits assigned are incompatible with the tolerance levels of established aquatic life within and surrounding the permit area. This condition is especially true of the pH effluent limit guideline applicable to coal mining operations.

For the coal mining industry the Administrator of EPA has assigned a pH effluent limit for Best Available Technology (BAT) and new sources between 6 and 9. This range, however, is too high and has been environmentally harmful in many locations throughout the nation, especially Appalachia. Under these standards, the mining industry spends millions of dollars each year treating rainwater and unaffected groundwater and surface waters to pH levels which are adverse to adjacent natural ecosystems.

In a perfectly "clean" atmosphere the pH of rainwater droplets in equlibrium with CO_2 in air is 5.6 while the pH value of rainwater due to natural sulphur compounds in the atmosphere can be expected to range from 4.5 - 5.6. Moreover, atmospheric concentrations of these natural emissions are affected by climatic conditions and data suggests a lower boundary of natural pH range of between 4.4 and 5.4. Is it reasonable that the mining industry should treat natural rainwater to achieve effluent limits? This has a significant adverse effect upon naturally acidic ecosystems such as bogs.

Several instances have been documented in which natural bogs and wetlands have been killed by mining discharges falling within the 6-9 range. This in itself is a contradiction to other portions of the Act, which provide for wetland protection. These systems cannot tolerate the alkaline discharges required by the effluent limit and the bog plants die and are replaced by alkaline tolerant species. In either case, unnatural conditions arise.

In addition to atmospheric waters, many of the streams in Appalachia are naturally acidic, with a natural background pH ranging from 4 to 6. The coal industry has amassed a substantial collection of baseline stream data for permitting purposes which is available to substantiate our claims. In addition, the majority of mining operations occur in the headwaters of streams in the Appalachian coal fields. In these areas especially those with shallow ground water characteristics, seeps and springs have a naturally low pH. As a consequence, the high effluent limits for pH as prescribed by EPA compels discharges which are detrimental to the natural ecosystems of these locations.

pH limits must be flexible enough to reflect natural conditions. This may be achieved either by: (1) reducing the lower limit of the pH range to 5 thereby more closely approximating natural rainwater conditions or, (2) adjusting the pH effluent limitations on a site specific basis.

The latter alternative can be achieved by amending Section 301 of the Federal Water Pollution Control Act by adding at the end thereof:

> "The Administrator, with the concurrence of the state, may issue a permit under Section 402 of this Act which modifies any of the requirements of this Act with respect to effluent limitations to the extent such limitations relate to pH from discharges from mining operations, in order to permit any discharge from such operations to have a lower pH than is required by such limitations, if the Administrator determines that the pH naturally occurring in the waters into which such discharges are made is lower than the pH required by such limitations."

Baseline hydroloic studies required by SMCRA (typically 6-12 months of data) define the natural pH characteristics of the area proposed for mining. These records accurately reflect the natural pH characteristic of the receiving stream and provide a logical basis for the establishment of pH effluent discharge limits for a specific area. Such a site specific range will ensure water quality that is truly compatible with the background conditions and species and will consequently protect the environment in its natural state. This policy would be environmentally nondamaging, and in many cases would be environmentally enhancing. There are no ecological or biological benefits to treating waters to unnatural levels.

If the above requested provisions are not directly incorporated into the Act's reauthorization, the members of MARC believe report language is necessary which outlines this pH problem and directs EPA to thoroughly evaluate the merits of modifying the lower boundary of the present pH effluent limit range.

NPDES PERMITS

Members of the coal industry strongly believe that the NPDES permit term should have a lifespan of at least ten (10) years. Equally important is that the performance criteria specified by the permit not be subject to significant change during the life of such permit. Such provisions would provide the permittee with much needed certainty and provide an opportunity to plan more economically and efficiently, and to more knowledgably design and invest in complex control technology. Additionally, 10 year permit terms would facilitate staggered renewals thereby reducing the permitting agency's workload and helping to ensure against the continuance of the significant backlogs in permit issuance which presently plague the system.

The National Pollutant Discharge Elimination System (NPDES) permit program currently requires the NPDES permit to be renewed every five (5) years. The 5 year lifespan of NPDES permits does not provide industry a sufficient length of time of guaranteed security from changing NPDES standards and from the retrofitting of control technology as may be necessary to comply with such changes. Furthermore, the permit holder does not have sufficient time to adequately test, evaluate, and refine the effectiveness of the treatment system prior to beginning the permit renewal application process. Long term operational planning, design and investment decisions are based upon original permit requirements and capital outlays for necessary technological controls and manpower. However, given that a mines life expectancy is usually in excess of 5 years the current NPDES permit term provides the potential for a company's cost projections to change every 5 years. If permit requirements were made more strict after the initial 5 year period, an operator may be forced to retrofit control technology to insure compliance. Not only is this expensive in its own right due to supplemental equipment costs and expenses incurred in the preparation and submittal of a new permit, it may require the company to rework its long term operational and financial projections. This has widespread and potentially devastating ramifications especially when one considers that coal supply contracts are often for terms well in excess of (5) years. New NPDES permit requirements may cause the cost of production to rise unexpectedly. Given these rising costs, a coal company could face severe economic hardships if locked into a coal supply contract at specified prices.

For the reasons stated herein the members of MARC support the expansion of the NPDES permit term to at least 10 years while limiting the opportunity for EPA or the State Regulatory Authority to "re-open" or modify a permit's performance criteria during such term.

Mr. Roe. We have our next panel, the Association of Metropolitan Sewage Agencies, probably one of the more important ones: Mr. Charles Kaiser, Jr.; and the California Association of Sanitation Agencies, Mr. Robert Miele; and the National League of Cities, Mayor Frank Sherrill of Social Circle, GA; and the Murray Calloway County Chamber of Commerce, Kentucky, Dr. Melvin Henley, president.

Welcome, panel. We are prepared to hear your testimony or accept your testimony in full, and you can summarize or whatever. The first on the list—and you can proceed in whatever order you choose—but the first on the list is Mayor Frank Sherrill.

TESTIMONY OF HON. FRANK SHERRILL, MAYOR, SOCIAL CIRCLE, GA, ON BEHALF OF THE NATIONAL LEAGUE OF CITIES; CHARLES B. KAISER, JR., ASSISTANT EXECUTIVE DIRECTOR AND GENERAL COUNSEL, METROPOLITAN ST. LOUIS SEWER DISTRICT, ON BEHALF OF THE ASSOCIATION OF METROPOLITAN SEWAGE AGENCIES; DR. MELVIN HENLEY, PRESIDENT, CHAMBER OF COMMERCE, MURRAY CALLOWAY COUNTY, KY; AND ROBERT P. MIELE, HEAD, TECHNICAL SERVICES DEPARTMENT, COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY, ON BEHALF OF THE CALIFORNIA ASSOCIATION OF SANITATION AGENCIES

Mr. Sherrill. Thank you, Mr. Chairman. It is my pleasure today to be here on behalf of the 15,000 member cities of the National League of Cities, either direct or indirect. You have received copies of the written testimony. I would like briefly to summarize that testimony and make some elaborating points concerning the NLC policy.

I am Frank Sherrill, mayor of the city of Social Circle, GA. Someday, Mr. Chairman, I would be happy to tell you the story of how that came about. Certainly, it is an interesting tale on the name of that location.

But I come today to speak on behalf of the concern of local governments across this Nation with respect to the reauthorization of the Clean Water Act. We see this problem as being one that is national in scope and that we at the local level are a part of the solution.

I have heard earlier today testimony that would indicate that there is a confidence in the publicly owned treatment works across this Nation that is being developed as we become more proficient in operating and maintaining our facilities and indeed as we are able to construct the facilities necessary to meet the goals of the act.

It is a very difficult problem for us as municipalities across this Nation because we vary in size and we vary in the nature and the scope of the problems that we address. The larger cities among us, the New Yorks and the Bostons, have got a set of problems that we in a city such as mine of 2,600 certainly do not face. Their problems are such that they have got to deal with an extremely difficult regional solution, being able to put together the necessary and appropriate intergovernmental agreements and to deal with a treatment level that is much more complex than certainly other communities.

The medium-size cities of this Nation are faced with somewhat different problems. As I have heard the members of the committee earlier today talk about your individual communities, some additional requirements have been placed on medium-size cities in dealing with regionalization, going greatly beyond the level of their actual jurisdiction. Again this is a problem that we have been dealing with and struggling with as we deal with State priority lists and the ability to put together the local financing package.

The small cities, of course, have their own set of problems, and I am the mayor of one of those. We have a great deal of difficulty entering the bond markets as well as a very high per capita cost of construction. The issues that you have addressed in the reauthorization as it deals with the initiation of a loan component very much will benefit the local small communities.

We deal with the Clean Water reauthorization in a changing environment at the national level where we see more and more support that the Federal Government has been providing to local governments disappearing. Indeed, we see cutbacks or proposed cutbacks in general revenue sharing, transportation programs, community development block grants, and housing programs that will, by their very nature, put additional strains on the limited resources of State and local governments.

So that to achieve a national objective of clean water in this Nation, we would like to remain a part of the intergovernmental team—Federal, State, and local—to achieve the standards or the goals of the act, and that is to provide clean water for our citizens.

In brief, then, I would like to summarize several points that the National League of Cities has developed as policy for our communities. We would like to see at a minimum the $2.4 billion grant level that has been in place in the law since 1981. It will give us—by allowing that commitment to remain through 1990—it will allow the local governments to fund these programs on the basis that is equitable among the communities as well as give us a degree of reliability in our planning process as we see a shift in the overall funding program.

I would like to comment, though, within the scope of that $2.4 billion, that there have been some comments or proposals to deal with the non-point-source pollution within that framework. We see that the order of magnitude of publicly owned treatment works being of such an order of magnitude that to remove any funds from that program will slow down and indeed hurt the local governments to be able to meet the point-source problem.

As you heard Commissioner Ledbetter in this morning's testimony, the publicly owned treatment works remain basically the largest single contributor to the pollution load that we can identify at this point in time, and to remove funds from that program will do nothing but delay the solution that we all seek.

I would argue the cities of this Nation need to deal with their States in a very flexible program in two areas. First is the ability to have flexibility in the funding program. And if you notice, most of our comments on behalf of the cities deal with the funding problem because it finally comes down to us to deal with, and if there is no continuation of the program, it will be 100 percent locally funded, and this is not an acceptable position because there is no alternative for us but to enter a very expensive bond market.

But you have proposed two programs. One is a grant program, and one is a loan program. We believe that there are sufficiently diverse needs across this Nation that if you would grant the States of this Nation the ability to use some of that grant money when in consultation with those local governments, to convert some of that grant money into a grant program, depending on the needs of that State, that we could greatly enhance or speed up the revolving loan concept that we seem to be moving toward in this Nation, creating larger loan reserve pools in those States that so opt, such as Georgia, having created its own loan program, and allowing those States, when in consultation with their local governments, to keep that money in a grant program when that indeed seems to be best suited for them and their needs as they meet the goals of the act, which is to provide clean water.

Second, we believe that there can be some flexibility in negotiations between the permitting process for local Governments and with the States as they have enforcement powers to be able to look at the level of treatment in order to achieve the clean water objective of the act while allowing us to have a maximum flexibility in stretching the financial resources within the funding mechanism.

I think we heard earlier this morning the "treatment for treatment's sake" What we are looking for is being able to, as local governments, maximize the overall clean water objectives of the act within the limitation of the scarce resource, which, as we see it, is money. So that some flexibility in negotiations between local governments and their States in the permitting process will be required so that the money goes to the most important projects within a State to achieve the goals of the act.

Consistent with that, we feel that the States should have the ability to continue to establish the main target priorities within the act.

There is one additional point I would like to bring to the attention of the committee that does not fall within the jurisdiction of this committee, and that has to deal with some proposals that we are aware of at this point in time dealing either in the tax codes as Treasury has proposed it or certainly some tax revision acts or proposals, bills that came before the Congress of the United States.

In these proposals, what is being discussed is that if there is as little as 1 percent of a project that would benefit a private concern, that that project, in terms of the bond as the community enters the bond market, would become a taxable bond.

This would be very detrimental to the ability of the local Government to enter into the bond market. I would just bring to your attention that the tax-exempt rate might be somewhere in the 10-percent range of money, so that a $1 million project for a community as it enters the bond market is going to be responsible under current law for $450,000. At 10 percent, that is a requirement on the community to come up with a debt service capability of around $53,000.

If within that community—and such a community as mine with 2,600 persons and 500,000 gallons per day of flow, 1 percent of that flow would be 5,000 gallons, and almost in any community you would find a private concern that contributes that level of flow, that what you are looking at is converting all of that, the 99 percent from a tax-exempt 10 percent rate of interest to a taxable rate of interest at around 15 percent in the current market, essentially raising the cost to those local Governments from the $50,000 plus or minus to somewhere in the $75,000 to $80,000 range to benefit—or that would be paid for by the 99 percent of the population that is contributing flow to that facility.

So that it very seriously harms the local community by significantly increasing the rate at which they would be paying debt service on that project, again delaying or making more expensive to the local governments and to the citizens whom you represent, in the ability to resolve this problem of cleaning up the waters of this Nation.

Mr. Chairman, I appreciate your interest, and later on I would be happy to answer any questions.

Mr. ROE. Thank you, Mr. Sherrill.

Mr. Kaiser.

Mr. KAISER. Thank you, Mr. Chairman. My name is Charles B. Kaiser, Jr., and I am here today representing the Association of Metropolitan Sewage Agencies. I am chairman of the Legislative Committee, and as such I would like to take this opportunity to thank this committee and the staff for the time they have given us in discussing our problems and our hopes and our dreams for the continuation of the Clean Water Act. I can tell you they have listened to us patiently and this committee has. So I am going to try to read a short summary, and we will be submitting our testimony, our full testimony.

I am also here today representing the Conference of Mayors and U.S. Conference of Mayors, and I would like their statement put into the record, too.

AMSA member agencies serve more than 80 million people in 97 urban areas which collectively provide services to 50 percent of the Nation's sewered population. These agencies range from the city of Las Cruces Utility Division, serving 50,000 citizens to New York City's Department of Environmental Protection, serving more than 8 million citizens. I am also assistant executive director and general counsel to the Metropolitan St. Louis Sewer District.

To AMSA members, the central issue of these hearings is the Construction Grants Program. Consequently, my testimony today will concentrate on our concerns in this area.

Mr. Chairman, AMSA has consistently supported the goals of the Clean Water Act. We continue to support them, and we have made great strides under the current program toward achieving the program's goals, and we can finish this job if Congress will let us.

The 1988 secondary treatment deadline is fast approaching. Budget cuts in domestic programs will make it harder for us to secure revenues and public support for clean water projects, and the Federal program to assist our efforts is again up for review within the context of limited resources. But we can do what we have to do if you will support us.

We understand the difficult choices you are now considering. Recognizing these constraints, our testimony today offers some options to achieve further progress in meeting the goals of the Clean Water Act. These are our basic objectives in designing an approach to deal with current conditions. To preserve momentum, to secure maximum environmental gain, to minimize unnecessary disruptions in the program, to secure the largest return from remaining Federal dollars, and finally, to ensure that communities now ready to comply with deadlines have an opportunity to do so.

Mr. Chairman, H.R. 8, as proposed, largely addresses these principles. Additionally, Mr. Chairman, your legislation recognizes the importance of a strong Federal commitment to ensure compliance with the requirements of the Clean Water Act.

Let me now specifically comment on the Construction Grants Program and make specific recommendations for your consideration. First, some emphasis must be given to projects already under construction in the allocation of future construction grant funds. On this point, the administration is correct in requesting that these projects be given priority in future funding decisions so that the Nation can realize the environmental benefits associated with completion of these projects.

Second, construction grants must continue to be made available for those projects which are operating under a consent decree or an administrative order or construction schedule tied to the 1988 deadline. Alternative financing schemes now under discussion will likely delay projects which have been developed on the assumption that grant support will be made available over the next several years.

Third, there must be a commitment to continue the Construction Grants Program. H.R. 8 clearly underscores the importance of providing construction grant support during the critical stage of the national effort.

I would like to ad lib a little bit by saying that we feel that there has to be a commitment to live up to the 1981 commitments that said there would be funding for 10 more years at a reduced level at 55 percent for the 75 percent, and certainly less categories eligible. And we feel that H.R. 8 lives up to that commitment and we are happy to hear that there is more talk about continuing this and finishing the job, at least for the limited categories.

Finally, let me conclude with some comments on State revolving funds. AMSA believes that these alternative financing proposals do provide an opportunity to capitalize State funds to meet current, but mostly future, wastewater treatment needs. It is essential that we develop a continuing source of financing to assist communities in meeting ever-increasing capital needs. However, the level of construction grant support should not be compromised in the near term in order to provide financing mechanisms clearly designed for future needs.

AMSA members and other communities have designed projects and developed local financing plans based on a level of Federal assistance now provided under the Grants Program. These projects are designed to meet the enforcement requirements of the act. In the short term, and assuming that most States will not be able to leverage State revolving funds to the maximum level possible, these approaches provide less bang for the buck than the current Grants Program.

I think that the House bill recognizes this fact because they have a certain amount for grants and a certain amount for loans. And we would like to say this about the Loan Program. We have done quite a bit of calculating, and a loan to do what a 55-percent grant will do would have to be a loan for 100 percent of the project at about zero percent interest rate. We don't think that is the way to leverage it.

However, we are quite aware that over the phasing out of the Federal Grant Program, we think it will be phased out, at least hopefully in 9 or 10 years, but it is certainly going to be phased out, and I think that is an optimistic presentation.

But I really feel that we should hit the Loan Program to get us finishing these 1988 projects and then a transition into the Loan Program, which at least the Senate is looking at. I know that your bill looks at it. I happen to like yours a little better, to be perfectly honest, whether we can get that much money in this atmosphere. But if you just remember we took our kick-in in 1981 and kind of realized that we think clean water is worth the effort.

Last, I would like to say that through the help of this committee over the years, and Congress, we have really made some strides in clean water, and you can come to our area or any area and the water is better and that resource is being protected, and we think we can finish the job with the help that we receive from this committee over the years.

Thank you.

Mr. Roe. Thank you, Mr. Kaiser.

Dr. Henley.

Mr. Henley. Thank you, Mr. Chairman.

I don't represent any particular constituency except possibly middle America. We don't have any particular problems that you need to solve because you have already solved them. We were one of the fortunate cities to get one of those 75–25 matching grants, and our problems have been solved.

I am a former mayor of a small town, 14,000. I am a member of a board of regents of a small university of 7,000 enrollment, president of a chamber of commerce with 450 members, and a small businessman that pays corporate taxes, and I see this problem from a variety of perspectives.

I just have one success story, and it is a success because of you people and the programs that you have enacted in your wisdom through the years. I took over as mayor of a small town and inherited a fish kill suit that I had to defend, and it was really indefensible. We ended up paying our fine and taking our lumps, and then we went on to get a grant to build a new waste water treatment plant. We cleaned up our effluent. Today that plant is operating, and it does enable us as a chamber of commerce to attract local industry.

I know how important these grants are. At the same time, as a small businessman, I understand that we cannot continue to allow the Federal deficit to remain at today's levels. As a member of a board of regents of a small university, no one knows better than I the problems that our service delivery sector of society faces in funding in the future, and I know that we will have to have more local effort.

The Cadillac of our plan is what you set in place originally, of course, and that is the 75-25 matching grants. When we received our grant in Murray, KY—which, by the way, probably has more water anywhere except Minnesota; we are 40 miles east of the Mississippi and 40 miles south of the Ohio and 15 miles west of the Tennessee and Cumberland Rivers and have got water all around us. And we do recognize the importance of clean water.

In receiving this grant, we doubled our sewer rates in order to meet funding of our 25 percent. That perhaps caused some hardship with low-income citizens and the elderly, but by and large, it was a local effort that needed to be made. Had that 75-25 matching grant not been in effect, I know that it would have created much more hardship on some of the citizens of the community. But that, of course, is the Cadillac of the plan, and I recognize, as I think most people do, that Congress and EPA are facing up to the responsibility of decreasing the Federal budget by cutting out portions of this program and cutting down on it.

I would urge that at least some moneys be left in this program if at all possible, and perhaps suggest to you that these moneys could be utilized as matching grants to States to sell bond issues and put up matching moneys to evolve into a revolving loan program at either zero percent interest or low interest to those municipalities that are not as fortunate as mine and still have a great deal of work to be done in cleaning up the effluent from waste water treatment plants.

Thank you, sir.

Mr. Roe. I thank the gentleman.

Mr. Miele.

Mr. Miele. Thank you, Mr. Chairman. I am sure you are happy to see me today not so much for what I am about to say but the fact that I am the last person to speak to you.

Mr. Roe. Actually, the first thought that occurred to me is you have got more hair on your chin that I have on my head. [Laughter.]

Mr. Miele. I hope we haven't caused you to lose any more of it today. But thank you.

Mr. Roe. Mine didn't fall out, it's been pulled out over the years. [Laughter.]

Mr. Miele. I am Bob Miele, Mr. Chairman, and I appear before you today representing the California Association of Sanitation Agencies, CASA. I also head the Technical Services Department of the Los Angeles County Sanitation Districts.

In order that you might understand what CASA is, allow me to just give you a little background. The foundation of CASA was built in the late 1950's when the number of sanitation agencies in California met to discuss their common problems and share their experiences and expertise. After 25 years, CASA now includes over 80 public agencies serving more than 12 million Californians in the associated industrial and commercial users.

Our membership includes public agencies of all sizes from large POTW's such as ours, the Los Angeles County Sanitation Districts—in the East Bay Municipal Utility District we serve millions—down to small districts that serve about 10,000 residents.

Mr. Chairman, H.R. 8 and the administration's water bill address a number of issues of great importance to CASA. We have commented on these issues in my complete text, which I would like submitted for the record.

Mr. Roe. Without objection, so ordered.

Mr. Miele. But at this point in time I would like to address simply three issues, one of which you have heard about and two of which no one has addressed so far today.

The first one deals with funding. In 1981 Congress significantly reduced the authorization level for funding construction grants from $5 billion a year down to $2.4 billion. You now have a bill before you that would increase the authorization level for the Construction Grants Program, and fundamentally we endorse this action. While debate may occur as to whether the country can afford this program in light of the deficit problems, we believe that the Clean Water Act made its contribution to the deficit reduction with the enactment of the 1981 amendments.

California's future eligible needs, based on the 1984 EPA needs survey, are more than $4 billion. Many of these remaining needs are for small communities. These smaller communities did not have the resources to mobilize their construction activities when the program was in its early stages, and thus much of the grant funding in California went to the larger agencies such as ours which were prepared to proceed to construction.

CASA believes that it would be most unfair to eliminate or modify the existing Construction Grant Program in the near term, because it would create gross inequities for smaller communities trying to comply with the goals of the act.

We also endorse the provisions of H.R. 8 to preserve and enhance the existing Construction Grant Program while at the same time initiating a loan program. By implementing a loan program in this manner, those States which are properly prepared both administratively and financially to proceed could expedite the transition from construction grants to loans.

Our endorsement of the loan program concept, however, carries with it the provision that it be implemented in a manner far less cumbersome than the administrative burdens that have been experienced under the Construction Grant Program over the past 13 years. While administrative guidelines are a necessary element of any program to ensure its integrity, if these guidelines become overly burdensome, the economic benefit to be derived from a low-cost loan could quickly disappear.

Data that CASA has compiled indicates that the administrative costs associated with satisfying the regulatory aspects of the grants program amount to as much as 35 percent of the project's costs. If the same burden were to be imposed on a loan program, the ability to leverage resources through the fund may be diminished, making it increasingly more expensive for the municipality to finance the treatment facility.

The next issue I would like to address is related in one sense to the Construction Grant Program, and that deals with the issue of audits. Over the past several years CASA members have been subjected to extensive EPA audit reviews of their project. We believe that audits are necessary to protect the integrity of the Construction Grant Program and to ensure proper use of taxpayer dollars. Nonetheless, the audit reviews that we have experienced have gone well beyond the worthy objective of ensuring the absence of waste, fraud, and abuse, and it included auditors second-guessing the eligibility, the reasonableness, or the necessity of project costs which previously had received EPA or State approval during the planning, construction, and design phases of the project.

Last year, in 1984, POTW's in California appealed one out of every three audit determinations. Because of this level of activity, California now has almost as many State and EPA staff resolving audit appeals as there are auditors conducting the audits. In a recent survey of 10 California POTW audits, the disallowance based on the audit report, when the audit was first done, was 17 percent of the total project cost. That is the average for those 10.

Had these findings been allowed to stand, the POTW's share of project costs would have increased from 12.5 to 29 percent, almost a 150-percent increase in local cost. Following appeal by the POTW's, this disallowance was reduced to 2 percent. In fact, most of the California audit decisions have eventually been overturned and the auditor's disallowances recommendations have been reduced to a negligible amount in favor of the POTW.

We believe that this situation should be viewed as a warning light. The audit procedures in use demand corrective measures without delay.

My last issue deals with wet weather flow. Separate sewer treatment works which satisfactorily meet secondary treatment standards during dry weather experience problems in meeting effluent limitations during wet weather. These problems are caused by storm water entering the sewer system—and this has recently been determined to be rainfall-derived infiltration—which is neither cost effective nor technically feasible to remove. The storm water dilutes the waste water and increases the flow beyond the capacity of the transport and treatment system.

Recent studies estimate that over $1 billion could be required to meet secondary standards for the eastern portion of San Francisco Bay with no measurable improvement in water quality. Should such an expenditure be made, it would have the effect of diverting scarce resources from other projects that would otherwise contribute significantly to the improvement of California's waters.

Therefore, we urge the subcommittee to adopt language which would treat separate sanitary sewer systems subjected to rainfall-derived infiltration similar to combined sewer systems.

Mr. Chairman, that concludes my comments. I appreciate the opportunity to speak to you, and I would be happy to respond to any questions you may have.

Mr. Roe. I thank the gentleman for his testimony.

The gentleman from Minnesota.

Mr. Stangeland. Thank you, Mr. Chairman.

These questions are general in nature and I would urge any one of the panel who chooses to respond to do so.

Last Thursday the committee heard testimony to the effect that the majority of construction grant funds have been thus far targeted for construction of sewage treatment programs in our larger urban communities and that if we were to limit future funding for construction grants to projects that are already underway, that communities most adversely affected would be small cities and towns.

How accurate is this assessment, and could you comment generally on the equity of eliminating future Federal funding to new construction starts?

Mr. **Kaiser**. Well, I think that that is not necessarily true. In our particular State they took our construction on the Mississippi and Missouri Rivers off the priority list and asked us to step aside for some of the smaller towns and some of our more beautiful trout fishing and swimming and fishable-swimmable streams.

But I think that I wouldn't want ever to say it was small versus large. That's the one thing in our business I try to avoid. I would say this, that a tremendous inequity would be worked on small cities or large cities in the State of Missouri if you cut it down now because of the way we set our priority system.

In our case, we have had an excellent relationship with EPA and the State. In fact, the State is on our side. They are coming after us now to finish one last plant after we have doubled our area and taken on two rivers, the Missouri River and the Merrimac River, to clean it up, and now they have just issued a little draft consent decree yesterday that says do it all and do it tomorrow and forget the Federal money even if it's going to go on past 1988. And that only amounts to another $210 million to us after we just passed an additional $60 million bond issue last August to go with $25 million we already had.

So I can say this, that I happen to be very active in the State of Missouri—and I am just talking about Missouri—I have led two bond issues, one for $150 million and one for $200 million statewide, and I just think that we have cut down the Federal grant and the State grants. So we are taking that lump, but you can still survive.

I just feel the one big problem—and it's the problem with the loan—we in MSD, St. Louis, could probably go borrow money about whether we're going to be able to borrow it from the State in the Revolving Loan Program. I think the inequity is that there are some small cities like this mayor could comment, that if they had to pay 100 percent—now I may get murdered when I get back home and will never run for office again maybe—but at least we might be able to survive. I don't think the small cities can finance 100 percent of what this act really wants to do in cleaning up. Therefore, I would say it is going to work tremendous inequities on everyone, but it would probably prohibit a small town from doing 100 percent financing. That's my honest opinion.

Mr. **Henley**. My guess is that in Kentucky we don't have as much inequity. We don't have any large cities other than Louisville, so we don't have that problem.

Mr. **Sherrill**. I would also argue that we do not need to get into a large-city-small-city situation, that it is a national problem in which all cities are involved in trying to be a part of the solution. Each State has arrived within its own priority system the ability or the setting forth of the goals in which they choose to achieve the objective of clean water.

In some cases, such as in Georgia, we have basically dealt with a city that leaves the smaller communities on the tail end of the priority list in very serious difficulty, and that is why in Georgia we have created a revolving loan pool because we know, regardless of what the Congress does with the reauthorization, there still remains a significant need that will not be addressed within the financial capabilities of the Federal Government through the Clean Water Act.

Other States have opted to deal with the easy problems first, and they have resolved the difficulties of the smaller communities within those jurisdictions and have left the large communities to fend for themselves at this point in time when there seems to be discussion in removing Federal support from this particular very critical program, so that across the Nation we do not feel that it is in the best interest of cities who are cleaning the water of this Nation through POTW's by cutting back Federal support for either small or large cities. We are all in the same boat together if we are going to have a goal of clean water.

Mr. KAISER. May I make one other comment? We have addressed it in our State, if a small city is going to get a grant or build a project, normally in that 1-year funding for Missouri it will get the total grant. It will take bids off the total project. Maybe the plant one year, the interceptor the next year. We are looking right now at $350 million. The State of Missouri gives $60 million. There is no way, politics being what it is either in Congress or in the States. So we try to limit our proportion in any given year to our population, which is even less than the percentage than our needs would be. It comes out at less than 30 percent.

So to that end, I think a small city would either get total funding for the project or nothing if they miss that year, whereas most of the large cities like New York and others we try to do it in stages so that it's within the funding limit that we have within that State.

So I think that the continued funding will get more of the major city projects that are 30 percent, 20 percent, 40 percent under construction; it will help us finish those because we have already had the bond issues billed.

But I think in the total, if you just take small cities and large cities, I think all of them need continued funding, I would say, at least until about 1994–95 and within the realistic things that this committee and the chairman's bill has come up with and even Senator Chafee's bill. I think if you take a look at those type of things where you grant funding heavy up front and then go on to a loan program or your loan over the funding, I think both of those can get the job done in the timeframe we are talking about.

Mr. MIELE. Mr. Stangeland, as I indicated in my testimony, many of the needs in California are still for the smaller community. The larger communities were able to get in early and get many of their facilities built. But that is California. As you have heard here, I am not sure there is an answer to the first part of your question about whether it is the large or the small.

In answer to the second part about whether construction should be limited to new starts, I am not sure that has anything to do—I mean grant funding should be limited to new starts—I am not sure that has anything to do with cleaning up our Nation's waters. That is simply saying this is all the money we want to spend on clean water—Federal money we want to spend—and if that is what we are going to do, let's do it this way.

It seems to me to be fundamentally unfair and unjust to do that, that there are agencies that still have got to provide facilities to clean up the water and they are waiting for grant funding. They have very much a right to think that they deserve the money as those of us who were able to get in early and take advantage of it.

Mr. STANGELAND. But you tend somewhat—at least you, Mr. Miele—to confirm what I suspect is true in Minnesota, at least, and it was a natural progression. The big priority was the major effluent load, and that comes from our largest cities. So they were naturally No. 1 on the priority as opposed to the smaller towns, and now we have the smaller towns with problems. They weren't contributing that much at the time, but they will contribute and are contributing, and they have a difficult time working out a way of solving the problem without some assistance.

Could you assess the Clean Water Act provisions on innovative and alternative technologies in the proposals that have been recommended for improving how well local governments are able to fund new approaches to waste water treatment?

Mr. MIELE. I can speak to it from the standpoint of not necessarily CASA but the Los Angeles County sanitation districts. We have taken advantage of the innovative and alternative technology program, and we feel that we have been able to put it to good use.

One of the projects that we are building with the help of innovative alternative funding is a sludge processing system, the Carver Greenfield system, which has not been built on a large scale anywhere in the United States yet. It has been built in Japan. So in order for an agency to take a chance on a project like that, it was very, very helpful to know that there was additional money available to allow that to happen.

So from our perspective, it has been a worthwhile thing. There are other agencies in California who felt that the innovative and alternative funding took away from the basic needs of funding; I mean it came out of the same pot. So in California there has been mixed reaction to it. I am not sure I responded exactly to your question, but from our standpoint I&A funding has been a helpful thing.

Mr. STANGELAND. Any other response?

[No response.]

Mr. STANGELAND. Then one last question. Could you assess for me the provisions in H.R. 8 which would authorize what have been termed "turnkey" contracts allowing State and local governments the flexibility to contract for the design and construction of treatment plants on a negotiated basis rather than through competitive bidding? Also, could you tell the committee what limitations there are under State law for implementation of such kinds of contract?

Mr. KAISER. Well, we have been through this before, and my comment then was that there is a technical side to this that I think has been overlooked even at the stage we have gone with RFP's and technical proposals. It is kind of like doing a turnkey for a brain surgeon. The contractor goes out and hires the guy to design it that's going to be cheaper, and how the hell do you know who is low and who isn't low, because one is bidding on a plant that's going to be there for 20 years and operate beautifully for 20 years, the other guy is bidding on one that is going to get the job done for the first 6 months and then it's going to deteriorate. That is just one man's opinion.

Second, we must by law, State law, award it to the lowest responsive, responsible bidder, and I just don't know, if each guy has got his own set of plans to do that, how you accomplish it. Then you open up the door to all kinds of, "Well, he's just going to use $3 less electric and $4 less water, so that's really the best bid." So I would rather have our engineers working with an outstanding consultant to design a set of plans that we know will do the job and have it reviewed by a construction manager and take it to bid and everybody bids on the same set of plans. That is just one man's opinion.

But we have been vocal nationally against turnkey in this area because we think it opens up the door to shoddy—anybody can build something cheaper, you know. They did a turnkey on a parking lot in St. Louis, and it's falling down right now. So if you can't bid a parking lot, I don't think you can build a sewage treatment plant.

Mr. STANGELAND. Why does it work in the private sector?

Mr. KAISER. Well, first of all, I think in the private sector they can get the contractor and say, "We want you to hire that engineer." And I don't know whether they have bids from 10 or 12, this parking lot bid, and they took the lowest bid, but they have a lot more leeway on what they really feel is—they can take a look at the plans and say, "This plan I don't like, this plan I don't like, but this is the one we want," and it may not be the cheapest but they think for what they are getting it's the cheapest. You try that in our business—and I shouldn't say this, as I said before, in this kind of testimony; as a lawyer I should be for this because there will be litigation for the rest of my life—but I don't let litigation represent my agency.

What you do when you have that, you don't say—in the private sector he can take the highest, the lowest, the middle, he can pick anything he wants so long as he says, "Hey, look at this design versus this one. This is by far the best. It may be $500,000 more, but, boy, this is super. Throw these two out."

But you don't do that in the public sector. The other one says he can treat 100,000 gallons or 100 million gallons and the other guy says he can but one is shoddy and cheap and the other guy is brick and mortar. You know, it's just one aspect.

Mr. SHERRILL. I tend in many ways to agree with one man's opinion. It is very difficult in the public sector for local governments to be able to make that decision; there are so many subjective decisions as to what is indeed the most cost-effective responsive low bid that we are required to take.

You asked the first question, what impediments exist in State law. I do not know that there has been a study. I have heard the question asked of both the State officials this morning and now local officials. I think that it would be wise for our organizations to respond to that. I do not know across the Nation what the 50

States have, but in Georgia we do have some difficulty in being able to make an award on the design-build concept.

I do think that it can work in the private sector because, as the gentleman indicated, there is an ability to clearly delineate what the objective is within a timeframe and specify in a lot of instances exactly how they want the design to proceed. And then it works because it is a much quicker method and in terms of in industry they are looking at maximizing revenues by getting the product on line and sold. So it tends to speed is a part of why it works within the private sector, whereas in local governments we are looking for 20-to-50-year solutions and speed may not be the most important component part of the design-build process.

Mr. STANGELAND. Do you have any comment, Mr. Henley?

Mr. HENLEY. No, sir.

Mr. STANGELAND. Thank you.

One last question, Mr. Kaiser. AMSA, in the last session as we were putting together H.R. 8, had a position on local equivalency or pretreatment opt-out. I am wondering if AMSA still has a position, and if so, what is the position of AMSA?

Mr. KAISER. I think our position was that—I think the chairman said it beautifully when he said that funding in the resource was so important that we have kind of abandoned that as part of our legislative program in the sense that if we keep arguing about that and other things, we will not get a consensus and we will not get a bill and we will not get something that gives us a guide for reauthorization for at least 5 more years so we can plan and get on with this thing.

So we have more or less said we would go ahead and argue and get a consensus of environmental groups and others for the funding and we would shut up about that situation because you can only try and get so many nitpicking ideas, and whether we have it or we don't we will be treating sewage. It may be a little bit of a waste of money in some cases.

I say that as one who has even with primary one of our large plants an audited pretreatment program, no toxics, no hazardous, and EPA says it's a model for the country. So I was actually one of those wanting it and thinking it was a way to save, but when you think of the major thing that is facing us if the program is just going kaput, that is not the major issue, in our opinion, right now.

Mr. MIELE. May I comment on that, Mr. Stangeland?

Mr. STANGELAND. Mr. Miele, yes, by all means.

Mr. MIELE. You had indicated this morning the situation that exists in Los Angeles County, and let me—when Chuck Kaiser says this is not one of the major issues, there is a subsidiary issue to it that is major. You folks are dealing here in Congress with the whole issue of toxics and Superfund and so on. This stuff has to go somewhere. When you take a pound of lead out of the sewer, that doesn't make it disappear from the environment. It clearly has to go somewhere. And as we simply—and you have heard this argument before I am sure many times—but as you deal with this on a media-by-media basis, it doesn't work.

In Los Angeles County in southern California we are faced with the prospect now of not having anywhere to put toxic waste, hazardous waste. It is now being hauled over 200 miles from the nearest landfill. Well, that is not going to last long either.

So the concept of taking material out of the sewers simply because that happens to be the first law that was on the books doesn't always make good environmental sense. As these electroplaters, for example, have to remove metals from the sewer, they have got to take them somewhere, and the somewhere doesn't exist in southern California.

So we are concerned that when a legal disposal place doesn't eixst, then that stuff may find itself back into the sewers illegally, and that is the real environmental danger, as we see it. If we are going to get a pound of chromium into our system, we would much rather know where it's coming from and how it's getting in there than to see it come flying down the sewer at midnight sometime.

Mr. STANGELAND. Thank you, Mr Miele. I have been making the case for a local equivalency program based on my trips out to visit treatment facilities, and you just again refreshed my memory as to the side-effect problem of when you take the toxic out you still have a problem in addressing and dealing with it.

I signed on this legislation with a caveat that I was going to be allowed to offer some amendments, not the least of which would be this amendment, and I certainly hope that we have some support. I think it's responsible.

The interesting thing is that when I raised the question a year ago with EPA, they said it was an administrative nightmare. And in testimony with EPA in the beginning of these hearings, they now say that administratively it's possible. So I think we have come a fair ways, and it's something we shouldn't give up on.

Mr. KAISER. Mr. Stangeland, let me just comment on that. I hear the National Resources Defense Fund, I hear EPA, they are all talking about their lack of physical resources, their lack of people. I don't know where—you know, we are willing to take our lumps with anyone—but I don't know where this miracle—or this myth that the local governments like ourselves and the gentlemen on my left and right here, that there is unlimited funds here and we can just raise those rates to $500 a year, $600 a year, and hire all these people.

I can tell you that I am here speaking out from St. Louis to tell you that if EPA doesn't have the resources, I can tell you we can handle it with the people we have now our way. With the way they want us to handle it, sampling everybody and doing all these things and having to do all this policing, we can't handle it with the resources now. I am speaking now not for AMSA-St. Louis; I made the pitch about these little piles of stuff all over being dumped. I can tell you that the biggest myth is that this is the easiest, simplest way to do it. It is not. We are going to be wasting a lot of time and a lot of money, where we could be policing those industries and we know what they are putting in. So I will shut up.

Mr. STANGELAND. Thank you, Mr. Chairman.

Mr. ROE. Are there further questions?

Mr. ROWLAND. Mr. Chairman.

Mr. ROE. The gentleman from Georgia.

Mr. ROWLAND. Thank you, Mr. Chairman.

I just wish to welcome all of you here, and especially to welcome Mayor Sherrill from my own home State of Georgia. I was very pleased to have Leonard Ledbetter, who is our president-elect of ASIWPCA, here this morning, and now Mayor Sherrill representing the National League of Cities.

I heard you say some of the same things, Mr. Mayor, that were said by the commissioner this morning about grant money being moved over to loans in nonpoint sources of contamination for small cities and allowing States to decide on projects.

Did you hear his testimony this morning?

Mr. SHERRILL. Yes.

Mr. ROWLAND. Do you essentially agree with most of the things that he was supporting this morning?

Mr. SHERRILL. I personally do. I feel that the National League of Cities is in a high level of agreement with the ASIWPCA proposals. I think there is agreement on these issues, and I would be ill-advised to disagree with Mr. Ledbetter at any point.

Mr. ROWLAND. Well, thank you very much, and thank you for being here today.

Thank you, Mr. Chairman.

Mr. ROE. I thank the gentleman.

If there are no further questions, we want to thank you very much for your patience and indulgence. Your testimony is very helpful to us, and now let's go write the bill.

Thank you very much. The meeting is adjourned.

[The prepared statements of Mr. Sherrill, Mr. Kaiser, Mr. Henley, and Mr. Miele follow:]

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STATEMENT OF

THE HONORABLE FRANK SHERRILL

MAYOR, SOCIAL CIRCLE, GEORGIA

on behalf of

THE NATIONAL LEAGUE OF CITIES

on

WASTEWATER TREATMENT PLANT CONSTRUCTION GRANTS

before the

SUBCOMMITTEE ON WATER RESOURCES

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

April 30, 1985

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Mr. Chairman, members of the Committee; I am Frank Sherrill, Mayor of Social Circle, Georgia and a member of the National League of Cities' Energy, Environment and Natural Resources Steering Committee. I am here today to testify about the wastewater treatment plant construction grants program on behalf of NLC and the 15,000 cities we represent--cities ranging in size from New York City to my city of 2,600.

First, Mr. Chairman, we are not here as local governments asking for federal assistance to solve a local problem. Rather we are local governments offering to help the federal government solve a national problem, a perspective we believe this Committee shares.

As you well know, the nation's waters do not respect political boundaries. They flow from city to city and state to state. The actions of any one city or any one state may adversely impact Americans living in many cities and in many states.

Clean water is recognized as a national priority, one on which all of us--cities, states, and the federal government--should be willing to work. The National League of Cities shares this Committee's belief that the federal government has an obligation to continue its financial participation in the successful construction grants program and to reject efforts to phase-out such assistance until we have achieved our goal. Clean water for all Americans has been and should remain a national committment.

We support the objectives of the Clean Water Act and the evidence clearly indicates we are making progress toward achieving its goals. Those goals are being achieved because the law approaches the problem from the perspective of prevention and prevention is far less expensive in the long run than attempting to reverse significant damage after it has occured. If we do not continue our efforts at prevention, we will ultimately need another Superfund-type of clean up activity, a far more costly endeavor as this committee well knows.

We also want to warn of the dangers of averages. It is true that we have made real progress in cleaning up our waters. The EPA reports that 70 percent of the secondary plants required by the Clean Water Act have been constructed, but in many of the rivers that receive sewage from the 30 percent of communities that have not built required secondary treatment plants, pollution is as bad as ever.

This issue is of broad concern to cities from the largest to the smallest. The problems of achieving compliance vary depending on city size.

For the nation's large cities--the New Yorks, the Bostons --the costs are immense and the technology complex. Facilities costing in the billions of dollars, requiring complicated technology and broad interjurisdictional agreements are understandably slow getting authorized. Some are just now crossing the last hurdles, at a time when there is talk of ending the program.

The medium-size cities have different obstacles to comply with the law's requirements. A condition of receiving a federal grant for many of these cities is that the facility serve many of the surrounding communities as well, an approach we consider appropriate. But regionalizing a wastewater treatment plant means negotiating rate setting agreements and allocating financial responsibility for the local share of costs among the many participating jurisdictions.

For the smaller cities, especially those that are remote from the more populous areas of a state, the problems with constructing a wastewater treatment plant are almost insurmountable. Essentially, the nation's smallest cities have very limited access to the bond market and regardless of the local match requirements are often unable to finance the costs of construction. While the cost of a plant for a small city is not large, the cost per capita is often very high. As a result, frequently they place relatively low on a state's priority list.

The smaller facility also loses economies of scale resulting in a high cost per 1,000 gallons of water treated. That means high user changes that discourage voters from approving the bonds necessary to construct plants that must be built to comply with the law. The population residing in the small rural areas and the inner cities are also frequently the people least able to pay such high user charges, if the plants are built.

All cities, regardless of size, are part of their states' priority setting process. States can establish priorities for funding treatment plants on a variety of criteria, such as serving the greatest number of people or having the greatest impact on the environment. These objectives are not necessarily coterminous. In a large city such as Boston, the cost of constructing a wastewater treatment facility to deal with its problems is estimated to be at least $2 billion. Yet the state of Massachusetts receives about $83 million annually of 201 money. For some in Massachusetts, the Boston facility seems an impossible candidate for the state's priority list, even though it would serve a significant percentage of the state's population. In contrast, in the state of Alaska, Pelican, a city of 600 people, requires a facility costing $1.3 million. Given a 55 percent federal grant, that city of 600 will be required to come up with $600,000 or $1,000 per person just for the costs of construction.

What would be the consequences of federal withdrawal from financial participation in the construction grants program? We fear that many needed plants would not be built.

The surpluses that Treasury maintains exist at the state and local level are simply not there. At the state level, 16 governors have indicated their intention to raise state taxes this year. Even if a state should have a surplus, we are told it will be used to compensate for reductions in support of operating programs.

Local governments are prohibited by state law from deficit spending. Over the past four years, almost every local government has raised taxes or reduced services in order to maintain a balanced budget. Some have done both. Since we are required to balance our budgets, any prudent manager of local government is going to have a contingency fund as insurance against unexpected emergencies. At the end of the fiscal year, if no emergency has occured, the contingency fund shows up as a surplus. But then it is absorbed as revenue for the next year's budget.

For fiscal 1986, the Senate Budget Committee has proposed to reduce general revenue sharing by 50 percent, public transportation assistance by 25 percent, Community Development Block Grants by 20 percent, and housing assistance by 10 percent. This is after cities have already taken cuts of over 50 percent in urban programs over the last five years. In addition, last year's tax law and this year's Treasury proposal to eliminate the authority for cities to issue tax-exempt bonds for so-called "private purposes," is making it difficult to raise construction funds.

Cities simply do not have the fiscal capacity to absorb all the proposed cuts and simultaneously find the resources to meet such federal mandates as clean water, regardless of how much we support the objectives of those mandates. We too will have to re-prioritize and many things will not get done. If we are unable to pay for expensive plants to clean up our waters, the federal government will be forced to spend its scarce dollars on lawsuits to enforce compliance with mandates that cities have no capacity to meet. What a terrible waste of time and money!

Here is the position developed by our membership.

First, NLC supports a continuing federal financial participation in the wastewater treatment plant construction program. At a minimum, the commitment to provide an annual $2.4 billion grants program through 1990 should be honored.

We also believe that funds allocated for construction grants should not be earmarked for other worthwhile, but subsidiary water pollution concerns, such as development of non-point source pollution control programs.

Second, NLC supports establishment of a revolving loan program as a supplement to, but not a replacement for, the grants program. Loan funds should be distributed among the states which should then establish their own revolving loan programs for the distribution of loans, loan subsidies, or bond subsidies, to localities for the construction of wastewater treatment systems. We believe such a supplementary program would help leverage federal wastewater treatment funds, reduce annual local debt payments and provide cities with added flexibility in structuring their wastewater treatment financing plans.

Third, while we support continuation of the grants program as well as establishment of a revolving loan fund, we believe states should have the flexibility--a flexibility contingent on substantial involvement of local governments in the decision-making process--to determine how much of their allocation to use for either program. This flexibiliy is essential to be able to respond to the varying needs of cities of different sizes. If the intent of Congress is to encourage states to move in the direction of a revolving loan fund, we suggest the committee consider requiring a state match as part of the grants program, but not make it a requirement of the loan program.

Fourth, targeting of funds should be left to the states. We believe any attempt by the federal government to target funds has the potential to reduce state funding commitments should federal priorities differ from those of the state government.

Also, the geography and circumstances in different places dictate different approaches. One local official told us that in his state it made more sense to target a plant at the head of a river, because pollution at the headwaters would affect everyone down stream. We believe the current approach of state prioritization is working and should not be changed.

Fifth, while the issue is not within the jurisdiction of this committee, Congress should reject efforts by Treasury to reduce further local ability to raise funds in the bond market for construction of wastewater treatment plants.

Thank you, Mr. Chairman, for the opportunity to present our views. I would be pleased to answer any questions.

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Angeles County Sanitation District CA
City of Colorado Springs CO
Denver Sewage Disposal District CO
he Metropolitan District (Hartford) CT
District of Columbia DC
City of Jacksonville FL
Dade Water & Sewer Authority FL
Orange County Public Utilities FL
City of Tampa FL
City of Atlanta GA
City of Honolulu HI
City of Boise ID
MSD of Greater Chicago IL
Sanitary District of Rockford IL
City of Wichita KS
Louisville & Jefferson County MSD KY
Orleans Sewerage & Water Board LA
City of Baltimore MD
Anne Arundel County MD
WSSC, Hyattsville MD
olitan District Comm., Boston MA
Upper Blackstone WPAD MA
South Essex Sewerage District MA
Wayne County Public Works MI
of Water & Sewerage Department MI
City of Kalamazoo MI
WLSSD, Duluth MN
Waste Control Comm., St. Paul MN
City of Kansas City MO
St. Louis MSD MO
City of Omaha NE
Ocean County Utilities Authority NJ
Essex and Union Counties NJ
Bergen County Utilities Authority NJ
Valley Sewerage Commissioners NJ
Middlesex County Utilities Authority NJ
City of Albuquerque NM
Albany County Sewer District NY
Buffalo Sewer Authority NY
Nassau County D.P.W. NY
City of New York NY
Onondaga County NY
County of Monroe NY
City of Greensboro NC
blic Utilities Department, Raleigh NC
City of Akron OH
Greater Cincinnati MSD OH
Cleveland Regional Sewer District OH
City of Columbus OH
City of Dayton OH
City of Toledo OH
Tulsa Water & Sewer Department OK
Unified Sewerage Agency OR
City of Portland OR
City of Philadelphia PA
gheny County Sanitation Authority PA
Narragansett Bay Commission RI
City of Chattanooga TN
City of Knoxville TN
City of Memphis TN
City of Nashville TN
Trinity River Authority TX
City of Dallas TX
El Paso Water Utilities TX
City of Fort Worth TX
Coast Waste Disposal Authority TX
City of Houston TX
City of San Antonio TX
Salt Lake City Public Utilities UT
Central Valley WRF UT
Fairfax County Sewer System VA
Hampton Roads Sanitation District VA
nicipality of Metropolitan Seattle WA
City of Tacoma WA
Green Bay MSD WI
Milwaukee MSD WI

STATEMENT BY

CHARLES KAISER, JR.

ASSISTANT EXECUTIVE DIRECTOR

AND GENERAL COUNSEL

METROPOLITAN ST. LOUIS SEWER DISTRICT

ON BEHALF OF THE

ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

AND

SUBCOMMITTEE ON WATER RESOURCES

PUBLIC WORKS AND TRANSPORTATION COMMITTEE

U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.

APRIL 30, 1985

Mr. Chairman, I am Charles B. Kaiser, Jr. I am here today representing the Association of Metropolitan Sewerage Agencies for whom I serve as Chairman of the Legislative Committee. AMSA member agencies serve more than 80 million people in 97 urban areas which collectively provide services to 50 percent of the nation's sewered population. These agencies range from the City of Las Cruces Utility Division serving 50,000 citizens to New York City's Department of Environmental Protection serving more than 8 million citizens. I also am Assistant Executive Director and General Counsel of the Metropolitan St. Louis Sewer District.

To AMSA members, the central issue of these hearings is the Construction Grants Program. Consequently, my testimony today will concentrate on our concerns in this area.

Mr. Chairman, AMSA has consistently supported the goals of the Clean Water Act. We continue to support them, and we have made great strides under the current program toward achieving the program's goals. And we can finish this job if the Congress will let us.

The 1988 secondary deadline is fast approaching. Budget cuts in domestic programs will make it harder for us to secure revenues and public support for clean water projects. And, the federal program to assist our efforts is again up for review within the context of limited resources. But we can do what we need to do, if you will support us.

We understand the difficult choices you are now considering. Recognizing these constraints, our testimony today offers some options to achieve further progress in meeting the goals of the Clean Water Act. These are our basic objectives in designing an approach to deal with current conditions:

- To preserve momentum to secure maximum environmental gains;
- To minimize unnecessary disruptions in the program;
- To secure the largest return for remaining federal dollars; and finally,
- To ensure that communities now ready to comply with deadlines have an opportunity to do so.

Mr. Chairman, H.R. 8, as proposed largely addresses these principles. Additionally, Mr. Chairman, your legislation recognizes the importance of a strong federal commitment to ensure compliance with the requirements of the Clean Water Act.

Let me now specifically comment on the Construction Grants Program and make specific recommendations for your consideration. First, some emphasis must be given to projects already under construction in the allocation of future construction grant funds. On this point, the Administration is correct in requesting that these projects be given priority in future funding decisions so that the nation can realize the environmental benefits associated with completion of these projects.

Secondly, construction grants must continue to be made available for those projects which are operating under a consent decree, administrative order or construction schedule tied to the 1988 deadlines. Alternative financing schemes now under discussion will likely delay projects which have been developed on the assumption that grant support will be made available over the next several years.

Thirdly, there must be a commitment to continue the Construction Grants Program. Mr. Chairman, your bill clearly underscores the importance of providing construction grants support during a critical stage in this national effort.

Finally, let me conclude with some comments on state revolving funds. AMSA believes that these alternative financing proposals do provide an opportunity to capitalize state funds to meet current, but mostly, future wastewater treatment needs. It is essential that we develop a continuing source of financing to assist communities in meeting ever-increasing capital needs. However, the level of construction grants support should not be compromised in the near term in order to provide financing mechanisms clearly designed for future needs. AMSA members and other communities have designed projects and developed local financing plan based on a level of federal assistance now provided under the grants program. These projects are designed to meet the enforceable requirements of the Act. In the short term and assuming that most states will not be able to leverage state revolving funds to the maximum level possible, these approaches provide less "bang for the buck" than the current grants program. Mr. Chairman, your bill recognizes this fact by providing state revolving funds grants on top of an adequately funded construction grants program.

Mr. Chairman and Members of the Committee, this concludes my statement. Thank you.

STATEMENT OF DR. MELVIN HENLEY, PRESIDENT, CHAMBER OF COMMERCE, MURRAY CALLOWAY COUNTY, KY

Ladies and Gentlemen, thank you for allowing me the opportunity to furnish information and opinion concerning the clean water act and proposed amendments. I am a professor of Chemistry who has served as Mayor of a small town (14,000 population), as President of a local Chamber of Commerce (450 members), as a member of the Board of Regents of a small university (7,000 enrollment), and additionally, I am a small businessman who pays corporate taxes.

Having worn, and presently wearing, several hats enables me to see from a variety of perspectives the financial problems connected with cleaning up our nation's water. As a chemist, I am aware of the health hazards associated with allowing the indiscriminate pollution of both waterways and groundwater sources to continue at present levels. As a former public official I understand the difficulties in reaching a level of utility rate structure necessary for complete financing of additional wastewater treatment plant capacity to occur at the local level. As a member of a university Board of Regents, I understand that financial constraints exist at all levels of government and within the entire infrastructure of our national public service provider systems. As a small businessman I understand the frustrations associated with overregulation and the dangers we face if continued deficit spending at the federal level is allowed to continue.

As a former Mayor I was involved with a 75% federal matching grant that resulted in our letting a contract for construction of a $7 million wastewater treatment facility that has enabled our Chamber of Commerce and Local Development Corporation to attract new industry and new jobs to the community.

As a resident of Kentucky I have read in the Courier-Journal, the leading newspaper in the state, that a Circuit Judge has issued a restraining order blocking enforcement of state water-quality standards, even though testimony clearly indicated that many states (including Ohio, West Virginia, Illinois, Alabama, and Mississippi) have stricter limits on chlorides in streams than does the state of Kentucky. Reading this account made me wonder whether delegation of federal enforcement authority was as wise as we might have thought.

Wastewater treatment is a people-oriented business. The key to good plant performance is coupling sound operations and maintenance programs to a well trained staff. Too often our wastewater services are underpriced because of the political difficulty of raising rates when the need arises and the lack of public understanding that funds must be accumulated to be used in future capital expenditure for improvements. A public utility with stable cash flows can safely have a high debt to capital ratio, but even in such a case, a proper mix of debt and equity financing is necessary for a proper business atmosphere to exist. It is easy for utility management to satisfy their boards by lack of accumulation of sufficient capital funds for a reasonable down-payment on future facility improvements. One key to easing the strain of wastewater treatment facility financing is education of the customer and the public to an understanding that small, regular, annual rate increases will result overall in lower ultimate rates because of less reliance on a mix of debt to equity financing too rich in debt and too lean in equity.

Citizens concerned with water quality improvement should insist that publicly-owned wastewater treatment plants be provided with the financial support to both operate properly and to afford capital improvements when needed. An effective and equitable user charge system can provide sufficient funds for operation, maintenance, and modernization.

The clean water act of 1972 spelled out strict effluent standards for all publicly owned treatment facilities. Recognizing the inability of most cities to meet these standards without some assistance for new plant construction Congress included in that law a federally funded grants program with up to 75% funding from the federal treasury. Over $30 billion has already been appropriated; the needs survey shows several billion dollars needed to bring all publicly-owned plants up to standards originally called for.

Funds obligations have been declining in recent years, from a high of $6.7 billion in 1977 to $2.4 billion in 1984. Additionally, the federal share has been cut to 55%. Congress and the Environmental Protection Agency are apparently attempting to face up to the challenge of providing a suitable and smooth transition period from high reliance on federal funding to a complete lack of federal grants supplementing local efforts. Some form of low interest loans or loan guarantees will be necessary during this period, but there is a growing realization that it may be better to provide incentives for efficient plant construction and operation than to provide direct subsidies.

It is my understanding that the Reagan administration proposes in its fiscal 1986 budget to phase out the construction grants program entirely by 1990, while limiting funds available through FY 1989 to complete phase-segmented projects already underway, with no application toward any new projects. What disturbs me most about this is the administration proposal that no option be given to states or municipalities to use the grants as seed money for state revolving loans, an option recommended in a recently released Environmental Protection Agency future funding study.

The Environmental Protection Agency is faced with the problem of encouraging more local construction starts and with stimulating self-sufficiency in all aspects of wastewater management. Providing states with capitalization grants to help them set up revolving loan programs might be the best way to accomplish this. Such grants, if given, ought to be on a matching basis.

We have already seen the Illinois legislature pass a supplemental assistance program, applying the remainder of a state bond fund ($70 million) toward compensating for the federal reduction in grant support. The state of Massachusetts passed a bond issue two years ago, raising $250 million to be applied toward the difference between federal grants and allowances and the total eligible costs of a given project. Equally progressive is California, which has passed three general obligation bond referenda since 1972 to help finance wastewater treatment projects. California even has a contingency plan for the day when the federal program is phased out entirely. The state will award 25-year bond loans which will pay for 25% of all project costs.

Utilization of federal monies as a matching incentive for states to set up a revolving loan fund would maximize federal funds available, while insuring that the original intent of the clean water act would eventually be implemented.

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STATEMENT

BEFORE

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

SUBCOMMITTEE ON WATER RESOURCES

U.S. HOUSE OF REPRESENTATIVES

PRESENTED BY

ROBERT P. MIELE

HEAD, TECHNICAL SERVICES DEPARTMENT

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

ON BEHALF OF THE

CALIFORNIA ASSOCIATION OF SANITATION AGENCIES

APRIL 30, 1985

Good morning, Mr. Chairman and members of the Subcommittee. I am Robert P. Miele and appear before you representing the California Association of Sanitation Agencies (CASA). I am also the Head of the Technical Services Department for the County Sanitation Districts of Los Angeles County. In order that you might understand what CASA is, allow me to give you just a little background.

The foundation for CASA was built in the late 1950s when a number of sanitation agencies in northern California met to discuss their common problems and share their experiences and expertise. After 25 years, CASA now includes over 83 public agencies serving more than 12 million California residents and associated industrial and commercial users. Our membership includes public agencies of all sizes, from such large POTWs as the County Sanitation Districts of Los Angeles County and the East Bay Municipal Utility District which serve millions of people to small special districts such as the Montecito Sanitary District which serves 10,000 residents.

Over the years, the scope of our involvement has broadened to include participation with our state legislators and regulatory agencies on matters related to our activities. In 1985, for the first time, CASA is participating at the Federal level. Therefore, on behalf of CASA, thank you for this opportunity to present CASA's views on reauthorization of the Clean Water Act, an excellent program that we in California believe to be a vitally necessary part of the Nation's efforts to protect the environment and the public's health and welfare.

At the outset, I would like to say that CASA is eager to work with this Subcommittee and looks forward to this opportunity. As an organization in a state which represents over 10% of the country's population, we believe CASA is qualified to comment on proposals to amend the Clean Water Act.

Mr. Chairman, members of the Subcommittee and the Committee, you are to be commended for your unwavering support for the Clean Water Act. Since 1972, this Subcommittee has consistently sought continuity in the various elements of the clean water program. This has been no more evident than in the construction grants program. The Water Quality Renewal Act of 1985, H.R. 8, continues this commitment. Most important, H.R. 8 fulfills the promise of the 1981 amendments by providing funding of the construction grants program through the end of the decade, an action which is critically necessary to continued progress in the effort to restore and improve the nation's receiving waters.

H.R 8 and the Administration's water bill, H.R. 2090, addresses a number important issues. I would like to focus attention, however, on those issues of most importance to CASA that this Subcommittee will undoubtedly consider. CASA believes that six issues are of paramount importance to future clean water efforts:

- o Funding construction of wastewater treatment facilities;
- o Auditing construction grants projects;

- o Protecting the Nation's bays and estuaries;
- o Responding to wet weather flows in an environmentally and economically sound practice;
- o Providing for adequate liability insurance protection; and
- o Assuring that sewage sludge regulations that are administratively efficient are developed and promulgated without delay.

FUNDING WASTEWATER TREATMENT FACILITIES

We have come to a crossroads with regard to financing wastewater treatment facilities. To date, much has been accomplished through the construction grants program, but it is clear that we must decide on how this country intends to proceed over the next decade and beyond to continue progress in water pollution control. This is no small task. The most recent U.S Environmental Protection Agency's Needs Survey identified more than $100 billion in wastewater construction needs.

In 1981, Congress significantly reduced the authorization level for funding construction grants from $5 billion to $2.4 billion per year. It also limited the eligible uses of construction grants funding and reduced the Federal share of project costs from 75% to 55%. CASA is encouraged that the Subcommittee is considering legislation that would return the construction grants program to a status it once enjoyed and is supportive of this effort. Adequate funding and eligible activities are critical to assure stablility to the program and avoid creating inefficiencies in planning and constructing wastewater treatment facilities.

This Subcommittee now has legislation before it that would increase the authorization level of the construction grants program as well as the Federal share. While debate may occur as to whether the country can afford this program in light of the deficit problems, CASA believes that the Clean Water Act made its contribution to the deficit reduction with enactment of the 1981 amendments.

The Administration, on the other hand, argues that it is time to write the final chapter on this program. It further insists this is possible with its buy-out proposal. CASA believes that this proposal betrays the goals and objectives of the Clean Water Act. This buy-out proposal is simply a rewrite of the allocation formula and eligible funding activities, disregarding the true wastewater needs of the nation identified in the EPA's 1984 Needs Survey.

Since 1972, California's wastewater agencies have spent over $4 billion in Federal, state and local funds to construct treatment facilities. These expenditures have resulted in quantifiable improvements in the state's lakes, rivers as well as coastal waters. California's future eligible needs based on EPA's 1984 Needs Survey are more than $4 billion. Under the current allocation formula, even the continuation of the current program through 1990 will not meet California's needs; and under the EPA buy-out proposal, less than 10% of California's remaining needs will be met.

Many of these remaining needs are for small communities. They have spent the past several years in the facility planning stages and will soon be ready to design and construct their treatment facilities. These smaller communities did not have the resources to mobilize this construction activity when the program was in its early stages and thus much of the grant funding went to larger agencies which were prepared to proceed to construction. CASA believes that it would be most unfair to eliminate or modify the existing construction grants program in the near term, because it would create gross inequities for smaller communities trying to comply with the goals of the Clean Water Act.

As much as we urge this subcommittee to reject any effort to artificially eliminate program needs, we also hope that changes in the distribution of construction grants to municipalities would be avoided. Any change at this point in the program's activity may serve the purposes of delaying actual construction progress of wastewater treatment facilities and create unnecessary inefficiencies in program administration. When Congress passed the 1981 amendments, it took EPA almost two years to publish the necessary regulations implementing these amendments. Given this track record, CASA hopes the Subcommittee would avoid major changes to this funding program and thereby eliminate any possibility of a recurrence of regulatory delays which may slow progress toward completion of wastewater treatment facilities.

Establishing Grants to States to Provide for Water Pollution Control Revolving Funds

If Congress intends to phase out or eliminate the grant program before all of the water pollution control needs of our Nation are addressed, the we recommend that Congress begin the transition by committing to a lead time that does not impinge upon these communities' plans that were based on construction grants funding through 1990. Based on this concern CASA urges support for any alternative wastewater financing scheme that would not diminish the availability of construction grants until fiscal year 1991.

Specifically, we believe that Congress should appropriate funds, beginning in fiscal year 1986, to capitalize a loan fund that would parallel the grant program, instead of reducing the available level of construction grants. CASA therefore endorses the provisions of H. R. 8 that preserve and enhance the planned construction activities under the existing construction grants program. By a implementing loan program in such a manner, those states which are properly prepared--administratively as well as financially--to proceed to a loan program could expedite the transition from construction grants to loan assistance.

CASA recognizes that future treatment needs may outstrip the available pool of resources under the existing grant program, especially in light of the mounting Federal debt. Therefore we endorse the loan program concept with the provision that it be implemented in a manner far less cumbersome than the administrative burdens experienced under the construction grants program during the last thirteen years. While administrative guidelines are a necessary element of any program to ensure the program's integrity, if these guidelines become overly burdensome, the economic benefits to be derived from a low cost loan could quickly disappear.

Data that CASA has compiled indicate that administrative costs associated with satisfying the regulatory aspects of the grants program can amount to as much as 35% percent of a project's cost. If this same burden were imposed on a loan program, the ability to leverage resources through the fund may be diminished, making it increasingly more expensive for the municipality to finance the treatment facility.

CASA strongly supports language which provides that all funds under a loan program are to be used only for wastewater treatment needs. This kind of language offers a clear signal that there will be a source of definite funding reserved for POTWs. While this commitment is important, CASA urges Congress to avoid any attempts to define eligible activities for state loan fund use. We believe that the states and municipalities should have the maximum latitude to determine how fund dollars should be used most efficiently.

With regard to this point, we would like to recommend that Congress clarify the availability of loan funds for privatization purposes. We urge the Subcommittee to preserve the ability to develop construction plans that employ the concept of privatization. We urge this step because of a past Office of Management and Budget policy statement. This policy stated that any projects constructed with Federal grant assistance, would be considered ineligible for sale/leaseback or privatization benefits. This policy has a chilling effect upon the financial viability of this form of creative financing.

H.R. 8 remains silent on the payback period to the state fund for loans. While we agree that the states should have the flexibility to determine the proper amortization of any loan program, we believe some guidance is necessary. First, for purposes of any payback schedule, the design life of a facility should be defined according to an engineer's certification of the particular project in question, taking into account any special circumstances of the facility's construction or use. Second, the term of a loan should be authorized to extend to as long as the financed facility's design life.

The local government financing situation is very tight and it is important that any new finance burdens imposed upon the municipality be implemented in such a way to facilitate the assumption of new financing responsibilities.

In addition to these concerns, CASA believes the complexity and component nature of a wastewater treatment facility requires a specific definition of "facility" for purposes of the loan program. CASA would be willing to work with the Subcommittee and offer recommendations on this issue.

AUDITING CONSTRUCTION GRANTS PROJECTS

Over the past several years, CASA members have been subjected to extensive EPA audit reviews of their projects. CASA believes audits are necessary to protect the integrity of the construction grants program and ensure proper use of taxpayer dollars. Nonetheless, the audit reviews we have experienced have gone well beyond the worthy objective of ensuring the absence of waste, fraud and abuse; and have included auditors' "second guessing" eligibility, reasonableness or necessity of project costs which previously had received EPA or state approval during the planning, design and construction of the project. This audit review "second guessing" became a serious problem in California as early as 1980, and we expect it to spread throughout the Nation as the backlog of projects begin to receive their final audits.

CASA believes that the current audit review and the resulting audit appeals process is non-productive and unnecessarily costly to all concerned. In California, the current situation is generating an attitude that existing audit procedures are unreasonable and that a POTWs only recourse is to commit significant public resources to the appeal process.

This growing sentiment must not be interpreted to mean that audits are unnecessary. CASA firmly and unequivocally supports the audit effort to uncover waste, fraud, and abuse. But we believe it is equally important that any such audit review serve the specific purpose of uncovering waste, fraud or abuse; not question the wisdom of prior EPA or state approvals, which POTWs used to justify the spending of millions of dollars.

We believe that an audit review program should satisfy two criteria. First, it must provide for adequate control of the actual grant program. Second, an audit review program should be fair, reasonable and consistent with the regulations in effect at the time of a grant award. Audit reviews of California POTWs have been anything but fair, reasonable, and consistent and I have attached a number of such examples to demonstrate this point.

It is our belief that matters will only continue to deteriorate, leading to more audit appeals and more waste at taxpayers' expense unless this kind of "second guessing" as to eligibility, reasonableness or necessity of project costs is corrected.

In recent years, we have witnessed a consistently high level of California POTWs appealing final audit determinations. The 1984 percentage approximately 35%. Because of this level of activity, California now has almost as many state and EPA staff resolving audit appeals as there are auditors conducting audits. In most cases, these appeals have been resolved to the satisfaction of the POTW, however, this fails to reveal the true situation.

In a recent survey of ten California POTWs the average audit report recommended disallowance of approximately 17% of the total project costs. Under the regulations, by not appealing these findings, the POTWs share of project costs would have increased from 12.5% to 29%: a 145% increase in local costs. Obviously, POTWs did object to these findings by the auditors. At the final appeals stage of the process, the average disallowal was 2% of the project costs (from an original disallowal of 17%). I have included a recent presentation on this problem, which includes a more detailed description of these appeals.

Of course, the reduction in disallowed costs, after the appeal process, is only one aspect of an audit process out of control. There is the issue of an audit's costs and benefits to the public. Audit appeals are resolved only after considerable resources have been expended at all government levels. Table II in the attached audit presentation illustrates three examples of the audit process where the net costs exceeded any benefits. The audit process as currently conducted is not cost effective.

Most of the California audit decisions have eventually been overturned and the auditors' disallowance recommendation reduced to a negligeable amount in favor of the POTW. CASA believes that this situation should be viewed as a warning light--the audit procedures in use demand corrective measures without delay.

This Subcommittee and the Committee's other subcommittees are to be commended for past reviews of waste, fraud and abuse throughout the government funded public works programs. Recent investigations into the implementation of the municipal wastewater treatment construction grants program found that current audit practices are hampered by a lack of funds and the absence of a comprehensive management process. H.R. 8 contains a provision that would authorize specific funds to be directed to the Inspector General's Office to conduct construction grants project audits. This responds to the first finding.

In the matter of management, we believe that Congress should provide clarification on the matter of how best to effect an audit and therefore avoid the pitfalls of "second guessing" that ultimately result in lengthy audit appeals. We would welcome the opportunity to explore this issue further with the Subcommittee.

ESTUARY PROTECTION

This Subcommittee is to be commended for its attention to the needs of the Nation's estuaries and bays. CASA strongly supports efforts to put into place an administrative network that will address the water quality of estuaries and bays. These bodies of water represent the source of a vital marine ecosystem. The concept of using a management conference to formulate policy recognizes that there are intergovernmental considerations that must be addressed to successfully respond to degradation of the Nation's estuaries and bays.

CASA suggests, however, that the Subcommittee revise section 46 to authorize the Administrator to consider the potential problems associated with estuaries and bays that do not require supplementing interstate controls. I am specifically concerned that any estuary program also address those great estuaries that exist within a single state.

On example of such an estuary that would be excluded, under the current langauge, from a management conference is the San Francisco Bay-Delta. The San Francisco Bay-Delta is one of the Nation's most important estuaries. It is recognized as California's most valuable body of water, supplying water to more than 15 million people and to a large portion of one of the most productive agricultural areas of the country. The San Francisco Bay-Delta is surrounded by 5 million people and is a center for commercial shipping, fishing, and recreational uses. Daily, the public expresses concern in various forms over the health and well-being of the Bay. Knowledge of the impacts of toxics and other pollutants on Bay quality is vitally important as the issues of urban and agricultural drainage, future water supplies and pollutant discharges are resolved.

WET WEATHER FLOWS

The problems which occur in combined sewer treatment works during wet weather has been documented and addressed in the Act. However, separate sewer treatment works which satisfactorily meet secondary treatment standards during dry weather, experience similar problems in meeting effluent limitation during wet weather. These problems are caused by storm water entering the sewer system, recently determined to be rainfall derived infiltration, which is neither cost effective nor technically feasible to remove. This dilutes the wastewater and increases the flow beyond the capacity of the transport and treatment system.

The recently revised secondary standards recognize these problems as they relate to combined sewers by permitting the establishment of effluent limits on a case by case basis. For such treatment facilities, the decision as to whether any percentage removal levels can be defined, and if so, at what level, is left open. Requirements that the affected agencies have ongoing collection system maintenance and inflow/infiltration reduction programs could be imposed as conditions for use of this criteria.

Recent studies estimate that over one billion dollars could be required to meet secondary standards for the eastern portion of San Francisco Bay with no measurable improvement in water quality. Should such an expenditure be made, it would have the effect of diverting scarce resources from other projects that would otherwise contribute significantly to the improvement of the Nation's receiving waters. Therefore, we urge the Committee to adopt language which would treat separate storm sewers systems subjected to rainfall derived infiltration similar to combined sewer systems.

SEWAGE SLUDGE REGULATIONS

Section 64 of H.R. 8 establishes a timetable for the Administrator to develop numerical limitations and management practices for the control of toxic pollutants in sludge. CASA affirms this effort as a necessary step in providing wastewater treatment agencies with the guidance required to complete local sludge management programs.

We do have one concern related to this provision which allows the Administrator, in the designing of numerical limits, to promulgate design, equipment, management practices or operational standards (or a combination thereof) to protect public health and the environment. While this is a logical approach, we want to ensure that the Administrator will allow sufficient flexibility in this process. This flexibility should allow a POTW to pursue a different approach, if the POTW can demonstrate a properly run sludge management process or has collected sufficient research data demonstrating that an alternative to the promulgated standards would provide equal protection of public health and the environment.

LIABILITY

Finally, Mr. Chairman, we would like to turn attention to an emerging issue of importance to California POTWs and perhaps POTWs across the Nation.

Several California POTWs have recently learned that they will be unable to obtain insurance for "sudden and accidental releases. This includes such releases as potential methane gas leaks or explosions and chlorine leaks. we urge you and the other members of the Subcommittee to review this important matter as it reauthorizes the Clean Water Act. CASA is prepared to work with you to ensure that this emerging issue does not jeopardize POTW operations.

This concludes my formal testimony, Mr. Chairman. Let me reiterate my earlier pledge, CASA is eager to work with you to fashion the necessary changes to the Clean Water Act. I would be happy to respond to any questions that you or other members may have at this time.

EXAMPLES OF POTW AUDITS RESULTING IN AUDIT APPEALS

DISREGARDING PREVIOUS DELEGATED STATE APPROVALS

1. As the result of an audit, EPA disallowed the $75,000 cost of three construction contract change orders which previously had been approved by the delegated state agency. In disallowing these costs, which occurred under a 1972 grant, EPA cited a 1973 EPA regulation and 1976 EPA guidance.

2. As the result of an audit, EPA disallowed $132,000 in effort contributed by a state agency towards the grantee's share of a grant project cost even though the delegated state had reviewed the proposed contribution in advance and determined it to be eligible and even though EPA regulations specifically allow in-kind contributions.

3. EPA disallowed $151,000 for land which the grantee was required to purchase as a condition of a U.S. Army Corps of Engineers Section 404 permit. The land was required to replace the loss of wetlands in a waterfowl refuge that was to be occupied by the grantee's treatment plant. EPA disallowed the land costs during the audit phase even though prior to purchase of the land the state, with the concurrence of EPA, determined the land costs to be eligible.

DISREGARDING STATUTORY PROVISIONS OF THE CLEAN WATER ACT

1. As a result of an audit, EPA disallowed the cost of a grit tank because the auditors viewed this as an unnecessary cost, despite the fact that EPA approved the facilities' plan showing the grit tank and despite the fact that EPA's own Process Design Manual indicated that a grit tank was necessary. EPA disregarded section 203(a) of the Clean Water Act that states EPA approval of plans and specification "...shall be deemed a contractual obligation of the United States for payment of its proportional contribution to such project."

DISREGARDING EPA REGULATIONS RELATING TO CONTRACTUAL OBLIGATION

1. As a result of an EPA audit, EPA only allowed a maximum cost of $6,000 for preparation of an operation and maintenance manual, despite the fact that the grant EPA awarded provided a maximum of $16,000 for the manual. The grantee spent $13,000 in preparing the manual. There was no fraud or abuse in this expenditure. Despite this fact, the decision was made in direct conflict with EPA's own regulations

(section 30.345-5) that state that the award of a grant by EPA "...shall constitute an obligation of (f)ederal funds in the amount and for the purposes stated in the grant agreement...."

APPLYING CURRENT REGULATIONS RETROACTIVELY TO PREVIOUSLY AWARDED GRANTS

1. As a result of an audit, auditors recommended disallowance of $172,000 in engineering costs on a grant which was awarded in 1971. The basis of this decision was a March 1, 1976 regulation.

EPA AUDITS: A CALIFORNIA PERSPECTIVE

By Larry F. Walker

When I participated in a panel discussion at AMSA's annual conference three years ago, California was the only State experiencing serious problems with EPA audits. Now, it is clear that what was once primarily a California problem is beginning to emerge as a national problem. It can be anticipated that this trend will continue and within the next several years, the problems nationally will become as onerous as those which are presently being experienced in California.

Rather than wait for this to happen, I believe it is in EPA's interest, and in the interest of grantees, to reassess the EPA audit program. In doing this, I believe EPA should work closely with the states and with those who are most affected by audits, the grantees. The objective of this reassessment should be to

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Larry F. Walker, currently President of Larry Walker Associates in Davis, California, was previously Executive Director of the California State Water Resources Control Board. Prior to that, he was Manager of the State's Clean Water Grant Program, during which time California became the first state in the nation to be delegated the authority to administer the EPA construction grant program.

develop an audit program which meets two tests. First, it must satisfy EPA's need to maintain adequate controls on the grant program, and second, it must be one that grantees can accept as fair and reasonable. The EPA audit program, as it is now conducted in California, does not meet this second test. To develop a program which meets both tests will not be an easy task. The audit program and its many problems are extremely complex. I believe one way to do this would be to study the California audit problems. California could essentially be viewed as a pilot study. The data that has been developed over the past four years could be analyzed, together with the positive and negative aspects of this program. Then based on this analysis, an improved national audit program could be developed.

It is with this in mind that I offer you my perspective of the EPA audit program: it's problems and what could be done to improve the program. In the course of my presentation, I hope also to dispell several myths about EPA audits.

But, first let me tell you about California's audit problems. California's audit problems began rather abruptly, in 1980. During that year, two out of every three final determinations were appealed to the EPA Board of Assistance Appeals in Washington, D.C. By mid-1981, there were 80 audit appeals active within the State. There were basically two reasons for this large number of appeals. First, the costs being disallowed were substantial. One survey of 20 appeals showed that the average disallowance was 11% of total project cost, and had the effect of nearly doubling the grantees' costs (in California, the local share is 12.5% of the project cost). The second reason why so many audits were appealed was that, almost without exception, grantees considered them to be unfair.

Let's look now at why such substantial costs were being disallowed on so many projects; and at the same time address two of the myths associated with EPA audits. The first myth is that the costs being disallowed are associated with waste, fraud or corruption. In all the appeals with which we have been involved, I have yet to see what I would consider to be waste. At the very worst, I've seen grantees expend costs which, with the benefit of hindsight, should not have been expended. But this can hardly be considered waste; even the best of organizations, private as well as governmental, do this. As to fraud or corruption, I am not aware of any audit in California where EPA has identified fraud or corruption. If such audits do exist, they are rarities.

Audit myth no. 2 is that most of the costs are disallowed because they are not documented in the grantees accounting records. Our experience is that the costs claimed by grantees are generally documented in their accounting records. On those occasions when an audit does turn up an undocumented cost or a duplicate billing, grantees accept the disallowance without objection.

For the most part, the disallowed costs which California grantees have chosen to dispute through the appeals process are documented costs which EPA has disallowed on the basis of post-project determinations that the costs are ineligible under EPA rules, or that the costs are unnecessary or unreasonable. In many instances the costs disallowed had been approved previously by the State, acting under its delegation agreement with EPA. In other words, costs which the grantee had understood to be approved when the State approved plans and specifications, change orders and grant agreements were being disallowed as a result of the audit. In many instances, costs were disallowed on the basis of retroactive application of regulations, guidelines and policies promulgated after the grants in question had been awarded.

Over the past several years, the audit situation in California has improved dramatically. This has been due primarily to the efforts of the grant program staffs within EPA Region IX and the State Water Resources Control Board. With increased resources assigned to audit resolution, both agencies have been able to more carefully review the audit reports. As a result, most of the outstanding audit appeals have been resolved informally, to the reasonable satisfaction of the grantees. Further, increased scrutiny of audit reports prior to issuance of final determination letters has reduced the number of new audit appeals. The appeal rate has dropped from 60 to 70% in 1980 to 20 to 30% today. While the reduction has been dramatic, this rate is high enough to suggest there are still problems within the program.

Further, the prognosis for the future is not necessarily one of further improvement. The biggest threat to continued improvement in the program is EPA's new policy which prevents the EPA Regional Administrators from issuing final determinations without concurrence from the Inspector General's Office, whenever more than $100,000 has been questioned in the audit report. If concurrence cannot be achieved, the dispute is resolved by the Audit Resolution Board, in Washington, D.C. In California, more than one-half of the final determinations, and probably 80 to 90% of the grant funds audited, will require Inspector General concurrence. This is of concern because in our view, the improvements we have seen in recent years resulted from the Regional Administrators refusing to accept the recommendations contained in the audit reports. In the past, there wasn't much the auditors could do. This is no longer the case. We are also concerned about this policy because it undermines the authority of the Regional Administrators and the concept of State delegation. We see a disintegration of the State's authority if the State's approvals on 80 to 90% of the grant funds awarded are subject years later to review by a three-person panel in Washington, D.C.

Given the problems which California grantees have experienced with EPA audits and the prognosis that grantees in other states will soon begin to experience problems of similar magnitude, the question arises as to what changes can be made to improve the program. Based on the experience which we have gained in California over the past few years, I would like to suggest some things which I believe would improve the EPA audit program.

First, I believe EPA should narrow the scope of its project level audits to the following three areas:

1) Auditing grantee accounting records to ensure that the costs claimed have been incurred.

2) Confirming that the costs claimed are within the scope of the approved project.

3) Determining whether there has been waste, fraud, or corruption.

The present audit program goes far beyond addressing these issues. It is EPA's extension into other areas which causes the problems. Asking an auditor to come in after completion of a project and to make judgements as to whether costs were necessary, reasonable, and allowable promotes second-guessing, both of decisions made by grantees and their engineers and of decisions made by the delegate States. In my view, it should be the responsibility of the delegated states to review costs for allowability, necessity and reasonableness at the appropriate time during the course of a project. The auditor's role should be to ensure that the costs incurred were consistent with the state approvals. If the Inspector General's Office is mandated to ensure that state approvals have been only for necessary, reasonable and allowable costs, periodic program audits should be conducted for this purpose.

One might question whether the narrower scope which I have suggested would be in the public interest. Isn't EPA's broader approach to auditing yielding great dividends to the public? Wouldn't a narrowing of scope reduce those dividends? I don't believe it would. In fact, I believe the public would be better served by what I have suggested, than by EPA's present audit program.

I believe that it is this broader scope which encourages auditors to second-guess previous decisions of the delegated states, grantees and their engineers. This in turn leads to disallowances which grantees view as unfair, and causes grantees to appeal the audit determinations. Appeals cause EPA and state agencies to assign already limited resources to the audit resolution process. In addition, appeals cause grantees to expend considerable resources. In the end, at least based on our experience in California, grantees generally prevail and obtain a final funding decision which they view as reasonable. But, the cost to the public, in terms of Federal, State and local resources, has been considerable. Wouldn't the public be better served if the initial audits were such that grantees could accept the results as fair and reasonable? I believe narrowing the scope of the audits would help allow this to happen.

I'd like to give you several examples to support the general statements which I have just made. First, as to my contention that grantees generally prevail in their appeals. In preparation for this presentation, I reviewed a number of the audit appeals which our firm has been involved in, and which have final, approved consent agreements. In Table 1, for each of ten settled appeals, I have shown the disallowed costs as a percentage of the total costs claimed by the grantee; for the audit report, the

TABLE 1

DISALLOWED COSTS AS A PERCENTAGE OF CLAIMED COSTS ON 10 SETTLED AUDIT APPEALS IN CALIFORNIA[a]

Grantee	Docket No.	% Costs Questioned or Set Aside, Audit Report	% Costs Disallowed, Final Determination	% Costs Disallowed, Consent Agreement	Adjusted[b] % Costs Disallowed, Consent Agreement
Oroville	80-98	6.4%	6.4%	2.7%	2.4%
Auburn	81-34	8.8%	8.8%	4.2%	4.2%
North Marin	81-40	30%	16%	3.5%	3.5%
Livermore	81-58	22%	22%	2.5%	0.8%
Coachella Valley	81-61	100%	8.9%	2.3%	2.3%
Santa Rosa	81-68	26%	13%	5.3%	5.3%
Eastern	82-09,14	6.8%	5.3%	2.3%	1.2%
Lompoc	82-76	14%	2.6%	0.7%	0.2%
North Shore	82-85	90%	3.2%	0.1%	0.1%
Oxnard	83-02	26%	1.3%	1.0%	0.4%
Average		17.5%[c]	8.8%	2.5%	2.0%

[a] These 10 audits represent $60 million in claimed costs.

[b] This percentage excludes costs known to be ineligible prior to the audit.

[c] Excludes 100% and 90% figures.

final determination, and the consent agreement. These ten audits represent $60 million in claimed costs. As you can see, the average percentage of costs questioned or set aside in the audit report amounted to 17.5% of the total project cost. If the auditors recommendations had been sustained, the grantees share of the project cost would have been 30% rather than the anticipated 12.5%. The average disallowance in the final determinations was 8.8% of project cost, or about 70% above the 12.5% share which the grantee anticipated. In the consent agreements, however, the average disallowance was reduced to 2.5% of total cost. This, coincidently, is about the national average for EPA audits. To me this table strongly suggests that the original audits and the final determinations were not supportable, and in the end after a considerable expenditure of resources by all parties, the grantees prevailed.

Now I'd like to discuss the expenditure of resources required when EPA produces agressive, but unsupportable audits and final determinations. I've taken two appeals from Table 1, where grantees kept a record of the in-house resources spent during the audit resolution process. I've also taken a third appeal where in-house resources have been estimated. For each of these three appeals, I have calculated the Federal and State funds which were recovered as a result of the audit, and compared those savings to the Federal, State and local costs associated with the audit and the audit appeals process. I have then calculated the difference between the savings and the costs, thereby determining the net benefit of each audit.

The results of this analysis are presented in Table 2. As can be seen, in each case the total cost to the public exceeded the apparent benefit to the Federal and State governments. In other words, the public lost money on each of these three audits.

I don't mean for these examples to imply that EPA's audit effort doesn't return many dollars for every dollar spent, nor to imply that audits are unnecessary. What I do mean to imply is that the EPA audit program could be designed and managed to yield nearly the same dividends, but with less total resources being expended. By total resources, I mean audit resources, program resources in the EPA regional offices and in the states, and grantee resources

My second suggestion for improvement of the EPA program involves EPA's current audit position with respect to previously approved costs. This position is that all previous funding decisions, including the approval of plans and specifications, change orders and grant agreements, are subject to re-evaluation during the audit process. Consistent with this national position, EPA Region IX has disallowed elements of treatment plants constructed in accordance with approved plans and specifications and approved change orders. The rationale given is that upon re-evaluation the Region concluded that these elements should not have been approved. It is difficult for me to understand how EPA can justify such re-evaluation given Section 203(a) of the Clean Water Act. This section states that the Administrator's approval of plans, specifications and estimates shall be deemed a contractual obligation of the United States. EPA's Region IX's

TABLE 2

ANALYSIS OF THE NET BENEFIT OF SEVERAL CALIFORNIA AUDITS

GRANTEE	North Marin C.W.D.	City of Livermore	Coachella Valley W.D.
DOCKET NO.	81-40	81-58	81-61
COSTS CLAIMED	$1,097,904	$6,004,211	$4,755,266
COSTS DISALLOWED			
Audit Report	328,932(30%)	1,301,376(22%)	4,755,266(100%)
Final Determination	180,546(16%)	1,301,376(22%)	422,830(9%)
Consent Agreement	38,033(3.5%)	148,475(2.5%)	109,840(2.3%)
COSTS KNOWN INELIGIBLE PRIOR TO AUDIT	0	102,997	0
DISALLOWANCE RESULTING FROM AUDIT	38,033(3.5%)	45,478(0.8%)	109,840(2.3%)
APPARENT BENEFIT TO EPA AND STATE (@87.5%)	33,279	39,793	96,110
COSTS OF AUDIT/APPEAL			
Federal and State	15,000(est.)	15,000(est.)	15,000(est.)
Grantee Staff	11,127	10,000(est.)	28,527
Grantee Legal Counsel	8,693	0	8,887
Grantee Consultant	27,641	20,269	44,859
Total Costs	62,461	45,269	97,273
NET BENEFIT OF AUDIT	-29,182	-5,476	-1,163

response is that EPA is only contractually obligated to fund allowable costs, and allowable cost decisions are not made until after the final audit.

The Office of Water Program Operations recently attempted to deal with this issue, in what I consider to be a reasonable manner, when it issued OWPO 84-18. However, we find in practice that this operations memo can be read different ways by different people. In fact, Region IX reads this policy as supporting its previous practice.

The freshest and most rational statement on this issue was made recently by the EPA Board of Assistance Appeals in its decision in the case of Merced, California (Docket 82-74). In this decision the Board rejected Region IX's contention that no decision made prior to audit can be considered final. The Board concluded that in the case of Merced, the State had made a final determination on the disputed cost during the course of the project, and that EPA's responsibility during the audit process was to determine whether the costs claimed by the grantee complied with the State's determination. We understand that the Region is unhappy with the Merced decision and has requested that the decision be reconsidered.

This is an extremely important issue and it needs to be resolved through the issuance of a clear statement of policy at the highest level within EPA, i.e., by the Administrator. In my opinion this statement should reflect the policy implied by Section 203(a) of the Act. If the Administrator after studying the issue is inclined to issue a policy which would appear to conflict with Section 203(a), this statement of policy should be handled through the normal regulatory process, by first publishing a draft regulation and soliciting comments, prior to promulgating a final regulation.

My third suggestion is that EPA eliminate its new policy to require the Inspector General's concurrence on certain final determinations. The reasons for this recommendation have been discussed previously.

My fourth suggestion is that the authority and/or procedures of the Audit Resolution Board (ARB) be modified. The ARB was established for the purpose of resolving internal disputes between the Inspector General's Office and EPA program officials. The ARB is inaccessible to grantees, yet its decisions can and have had significant adverse impact on grantees. Further, once the ARB renders a decision, it is considered a final decision of the agency and is unappealable except to the courts. An example of an ARB decision having adverse impact on many grantees is ARB-4. This 1981 decision, in essence, required the disallowance of A/E service charges on grants awarded as early as the 1960's, where final determinations had not yet been issued. I believe the ARB decisions should be considered internal decisions and should be challengeable through the administrative process. Alternatively, the deliberations of the Board should be opened to the public, and potentially impacted parties should be given an opportunity to present information and arguments to the Board. In addition, the ARB role should be restricted to resolution of policy disputes, rather than resolution of project-specific disputes.

My final suggestion is that EPA modify its regulations so that the issuance of final determination letters can be delegated to the States. Nothing in the Clean Water Act would prevent this. Short of having delegation of final determinations, the States do not have the authority to administer the program, as Congress intended. Rather they have only the authority to perform certain tasks, and the real authority for all project-level determinations remains with the EPA Regions (Under the new policy to require the Inspector General's concurrence on final determinations, this authority could be transferred to the ARB).

In conclusion, I believe it is in EPA's interest to take a serious look at its audit program, before the problems presently encountered in California spread across the country. I believe EPA's audit program could be modified to better serve the public interest by the following actions:

1) narrowing the focus of project-level audits,

2) developing a policy on previously approved costs which is consistent with Section 203(a) of the Act,

3) eliminating the veto authority of the Inspector General's Office on final determinations,

4) modifying the authority and/or procedures of the Audit Resolution Board, and

5) modifying EPA regulations to allow delegation of the final determinations to the states.

[Whereupon, at 3:40 p.m., the subcommittee was adjourned.]

ADDITIONS TO THE RECORD

NFPA **National Forest Products Association**
American Paper Institute

API NFPA Environmental & Health Program
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Patricia K. Hill
Director Water Quality Programs
202 797 5782

April 30, 1985

The Honorable Robert Roe, Chairman
Subcommittee on Water Resources
Committee on Public Works and Transportation
Washington, D.C. 20510

Dear Chairman Roe:

Enclosed is a statement for the record by the American Paper Institute and the National Forest Products Association (API/NFPA) for the Water Resources Subcommittee's review during your consideration of amendments to the Clean Water Act.

API/NFPA thank you for the opportunity to submit our statement for the Subcommittee's consideration. Representatives of the forest products industry testified before the Subcommittee on several occasions during the 98th Congress in support of a limited number of modifications to the Act. Attached to this statement are copies of those previous statements which we would like to incorporate in this submission.

As noted in that attached statement, we reaffirm our support for the 1972 Federal Water Pollution Control Act and the water pollution control programs that have resulted since the Act's passage. We believe that the 1972 Act and the 1977 amendments provide the proper base for additional water quality improvement as we move through the 1980's. At the same time, we agree with the Subcommittee that modest refinements to the Clean Water Act will enhance, rather than inhibit, this desirable goal. By and large API/NFPA believe the Subcommittee has responded wisely to a number of substantive issues in the Clean Water Act, either through inclusion or omission of several provisions from the Subcommittee's proposed bill.

We would call your attention, in particular to our discussion of two changes recently incorporated in the Senate Environmental Pollution Subcommittee's bill -- antibacksliding and the nonconventional waiver deadline (pages 20 and 26) -- which API/NFPA believe should not be incorporated in legislation at this time.

Mr. Chairman, API/NFPA look forward to continuing to work with the Subcommittee and EPA in order to develop a more responsible, effective water program.

Sincerely,

Patricia K Hill

PKH/sr
Enclosures

STATEMENT FOR THE RECORD

BY THE

AMERICAN PAPER INSTITUTE
AND THE
NATIONAL FOREST PRODUCTS ASSOCIATION
1619 MASSACHUSETTS AVENUE, N. W.
WASHINGTON, D. C. 20036

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
OF THE
UNITED STATES HOUSE OF REPRESENTATIVES

APRIL 30, 1985

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I. INTRODUCTION

The American Paper Institute and the National Forest Products Association (API/NFPA) are national trade associations representing over 2,000 member companies who own and manage forest lands and manufacture pulp, paper and solid wood products. API/NFPA members have a direct interest in the effective implementation of the Clean Water Act.

II. FOREST INDUSTRY SUPPORT FOR THE CLEAN WATER ACT

API/NFPA's concern with the country's water resources predates the 1972 Federal Water Pollution Control Act. API/NFPA support the Act, as modified by the 1977 amendments. The 1977 record demonstrates that we were one of the industry leaders in proposing reasonable and constructive changes to the Act. The implementation of the Act today reflects the mid-course corrections we recommended, and this Subcommittee adopted, in 1977. These corrections did not modify or delay any of the basic objectives of the Act, but made it more effective.

Clearly, the most far-reaching and important 1977 amendments to the Act were those which distinguished between the treatment requirements for toxic and conventional pollutants. In 1977, Congress recognized the need to address the problem of toxic pollutants, while at the same time selectively reducing excessive regulation of conventional pollutants. Congress determined that the costs of additional treatment should not be excessive in light of the effluent reduction benefits to be achieved. Thus, Congress created the concept of BCT -- best conventional technology. At the same time, Congress decided to retain technology-based limitations as the basic foundation of the Act. This is a decision that API/NFPA supported in 1977 and continue to support today.

Four years ago API/NFPA established the API/NFPA Clean Water Act Issues Task Group, which began an intensive review of the Clean Water Act in order to determine what changes, if any, were necessary to improve its effectiveness. The Task Group looked, in particular, for additional opportunities to apply the guiding 1977 philosophy of "avoiding treatment for treatment's sake."

After concluding the review, API/NFPA believe that the Act can be more effectively focused in two ways: (1) eliminating costly and unnecessary requirements which do essentially nothing to improve water quality; and (2) concentrating the decision-making process at the most efficient level of government to deal with a particular program -- often the state or local agency.

Representatives of the forest products industry testified before this Subcommittee on several occasions in 1983 in support of a limited number of modifications to the Act. Attached to this statement are copies of those previous statements submitted during the 98th Congress. We will not repeat those comments provided by our previous testimony, except to incorporate them by reference in this submission.

Time and other events have resolved some of the issues of previous concern. The API/NFPA Clean Water Act Issues Task Group met in December 1984, reviewed the Act, and again concluded the

Act is fundamentally sound. API/NFPA continue to support its concepts.

As we noted in our testimony in 1983, there are a few modifications which if enacted would enable the Act to be more effectively implemented. The amendments recommended by API/NFPA are few in number and modest in their impact. They constitute a further refinement of the Act. In the following statement for the record, we will discuss the changes we advocate. We will also review those provisions of interest to us in H.R. 8, introduced by the Public Works and Transportation Committee leadership, and H.R. 1509, introduced by Congressman Oberstar, et. al. As well as the Senate Committee mark-up vehicles of S. 53 and S. 652, bills amending the Clean Water Act which have been introduced in the 99th Congress by Senators Stafford and Chafee. Finally, we will briefly discuss a number of issues of concern to us that have been raised in recent years during Clean Water Act deliberations. By and large, API/NFPA believe the Water Resources Subcommittee has responded wisely to these issues, either through inclusion or omission of several provisions from the Subcommittee's proposed bills.

III. API/NFPA PRIORITY LEGISLATIVE ISSUES

At the conclusion of our own review of the Clean Water Act we identified six areas where modest reforms would be helpful: (1) extending the BAT/BCT compliance deadlines; (2) clarifying indirect discharge of conventional pollutants;

(3) lengthening the life of NPDES permits from five to up to ten years; (4) eliminating redundant EPA review of state-issued NPDES permits; (5) extending the §301(k) deadline to include BCT innovative technology as well as BAT; and (6) clarifying the availability of §302(b) hearings in delegated states prior to a discharger being required to go beyond the BAT level of control for water quality reasons. Below, we provide our views on the best way to deal with each of these areas of concern.

A. BAT/BCT Industrial Compliance Deadline Extension

The extension of the current July 1, 1984 BAT/BCT compliance deadlines represents an issue where there appears to be a general consensus concerning the need for Congressional action. Section 4 of H.R. 8, the House bill introduced by the leadership of the House Public Works and Transportation Committee, amends the current Act to require compliance with BAT/BCT requirements within three years and six months after EPA issues the effluent limitation guidelines pertinent to a particular industry. S. 53 as introduced would have amended the current Act, requiring compliance with BAT/BCT requirements, "not later than three years after promulgation of the effluent limitations, or three years after July 1, 1983, whichever is later (but in no case later than July 1, 1987)."

Both of these proposals to extend the compliance deadline dates evolved during the 98th Congress as realistic responses which took into account the delays experienced by EPA in promulgating BAT/BCT effluent guidelines. Simply stated, industry will have insufficient time to meet the present compliance deadlines based upon EPA's published time schedule for promulgating the BAT/BCT effluent guidelines.

During the last Congress, API/NFPA supported the approach taken by the Senate and continue to support the concept. The identical provision had been included as Section 104 in S. 53 as introduced. However, almost two years have passed since the Subcommittee first reported this provision. While EPA has published a number of effluent limitation guidelines, they have not completed six major industry categories. Therefore, we recommended a July 1, 1988 date be substituted for the July 1, 1987 date included in Section 104. The Senate Environmental Pollution Subcommittee incorporated that change in mark-up on April 23, 1985. In our view the approach used in S. 53, with the one year modification of the date to reflect current realities, will provide industry with a date certain and sufficient lead time to achieve compliance with BAT/BCT requirements, while still retaining a statutory compliance deadline to encourage EPA to move promptly toward promulgation of final effluent limitation guidelines for all industrial categories.

B. Clarification of Indirect Discharge of Conventional Pollutants

We are pleased that both Section 6 of H.R. 8 and

Section 7 of S. 53 include a provision clarifying that publicly-owned municipal treatment works should not require pretreatment of conventional industrial pollutants in lieu of proper operation and maintenance of the treatment works.

In general, API/NFPA members that discharge into POTW's do not discharge toxic pollutants. Most of our industry effluents are characterized by the presence of conventional pollutants such as Biochemical Oxygen Demand (BOD) or total suspended solids. These pollutants are similar in many respects to domestic wastes, and are compatible with POTW treatment capabilities. Thus, EPA actions which have encouraged or required pretreatment of these conventional wastes are of critical concern to API/NFPA.

The House/Senate Conference Report accompanying the 1972 Act clearly states that:

> Pretreatment of biological waste that is compatible with the treatment provided by a publicly-owned waste treatment plant into which such waste is introduced may not be necessary . . . . In no event is it intended that pretreatment facilities be required for compatible wastes as a substitute for adequate municipal waste treatment works. (Leg. History; 1972 FWPCA; Vol. 1; page 313)

In our view, Congress was correct in encouraging the joint treatment of similar municipal and industrial wastes wherever possible as the most cost-effective approach to regional treatment needs. In some cases, there is also a technical benefit to this approach. Many industrial wastes, although highly treatable and biodegradable in biological systems, lack nutrients such as nitrogen and phosphorus compounds. Domestic wastes have an excess of these compounds. It is, therefore, very efficient to treat both categories of wastes by mixing them in a common treatment facility.

Similar language was included in the 1980 Third Circuit Court of Appeals settlement agreement resolving a number of general pretreatment regulatory problems. EPA agreed to include the following comment in the revised regulations:

> "This provision is not intended to require pretreatment for compatible wastes as a substitute for adequate municipal pretreatment. When difficulties arrive in meeting NPDES permit conditions, it is the responsibility of the POTW to come into compliance with its permit. The POTW should consider a solution that is cost-effective and equitable and consistent with the goal of joint treatment."

However, the comment was later removed from the regulations without a reasonable explanation for that action.

The deletion of that policy statement has had a significant impact. For even if EPA's unwritten policy has been to encourage joint treatment, actual practice at the regional and state level since 1978 has been to encourage cities with inadequate or poorly operated POTW's to require pretreatment of conventional pollutants by their customers, rather than to correct the problem of the POTW.

Both the House and Senate bills to amend the Clean Water Act (H.R. 3282 and S. 431) considered in the previous Congress included a provision designed to clarify this issue. When asked by Chairman Roe during the House Public Works and Transportation Committee's mark-up in May 1984 as to the interpretation and scope of the proposal, the EPA Office of Water responded:

> ". . . Our reading of this language is that it merely restates what is current practice and does not alter or restrict any of the existing authorities of the Administrator or the POTW. The provision makes clear that when a POTW is failing to meet its permit limits due solely to some failure by the POTW, the Administrator should not require pretreatment of conventional pollutants by indirect dischargers to remedy that problem. This provision recognizes that in such circumstances the burden of correcting the problem may more appropriately lie with the POTW itself through adjustment of its operations. This reflects on our current policy that determining how to resolve such problems is a matter of local choice by the POTW. The POTW may decide to require pretreatment or it may improve or expand its own treatment as an appropriate remedy.
>
> ". . . The provision would not relieve any indirect dischargers of their obligation to comply with all federal, state and local pretreatment requirements. The Administrator's enforcement authorities against dischargers or municipalities under the Act are not limited by the provision. Nothing in this section restricts a POTW from imposing any treatment conditions it chooses on its contributors.
>
> "Given its narrow focus, the provision appears to us to be a reiteration of the Agency's position that EPA should not impose pretreatment on indirect dischargers to correct unrelated operational problems at the POTW."

Some may question the necessity for continued inclusion of this provision if it is a restatement of the Agency's position. Unfortunately, there continues to be a high level of inconsistency in the application of this policy at the EPA regional offices and the states. Therefore, the clarification as developed by this Subcommittee during the last Congress continues to be necessary in order to resolve the issue. Consequently, we are pleased that language has been included in both H.R. 8 and S. 53 which makes it clear that Congress does not intend EPA to require pretreatment of compatible pollutants that could reasonably be handled by a well designed or operated POTW. The provision is tightly drafted in order to: (1) assure that dischargers of conventional wastes comply with local pretreatment programs; and (2) preserve a municipality's options in meeting its own permit requirements. We strongly support the continued inclusion of this provision by the Subcommittee in order to assure correction of a vexing problem of long standing with EPA's administration of the general pretreatment program.

C. NPDES Permit Term and Reopener Provisions

The National Pollutant Discharge Elimination System (NPDES) -- perhaps more than any other Clean Water Act program -- has been complicated by numerous, and often conflicting, administrative reforms, rulemaking actions, and judicial decisions. Under current procedures, it may take up to three years to negotiate a five year NPDES permit for an industrial facility.

One change that would substantially reduce the current administrative burden associated with the NPDES program involves extending the term of NPDES permits to up to ten years. This concept is reflected in H.R. 8 and had been included in S. 53 as introduced in the Senate earlier this year.

For EPA and the state agencies assigned the responsibility of issuing NPDES permits, extending the length of the permit would allow the staggering of permit renewals and thus reduce the annual permitting workload. This change would also prevent large permit backlogs from accumulating in the future.

In addition, from industry's perspective, the ten year permit would recognize that pollution control investments are expensive, and that once made, the discharger requires a reasonable certainty that his investment will have a useful life before he is required to make a new one. Moreover, the ten year term is particularly useful in providing an industry a longer time against which to write-off the cost of the pollution control equipment required by the permit.

The question of lengthening the term of the NPDES permit invariably raises the issue of appropriate reopener provisions to ensure necessary environmental protection. Unfortunately, the approach taken in S. 53 was extremely complicated and ultimately undesirable. S. 53 would have modified Section 402(b)(1)(B) of the Act to extend the life of NPDES permits from the current five-year term to "fixed terms not exceeding ten years." The length of permits which involve waivers or other modifications would have been left at five years.

Our problems arise with the second portion of the amendment which would have created a new Section 402(b)(1)(D) requiring that permits:

> (D) shall be promptly modified when new or revised requirements under Sections 301, 302, 303, 304, 307, 403, or 405 are established which are more stringent than any requirement in the permit or which control pollutants not limited in the permit and such modification implements these new or revised requirements. (Emphasis added)

This provision would have created a mandatory permit reopener any time there was a change in applicable effluent limitations, water quality standards, ocean discharge criteria, or sewage sludge disposal regulations.

In our view, this amendment would have worked to destroy much of the stability of the current five year NPDES permit rather than provide additional certainty through the ten year term.

Specifically, a mandatory reopener provision, as envisioned in S. 53, raises four major concerns.

First, the paper industry -- as well as a number of other dischargers of conventional pollutants -- hold existing Best Professional Judgment (BPJ) permits, as the Best Conventional Technology (BCT) effluent limitation guidelines have not yet been issued. Under EPA's current regulations, these permits would be allowed to run out their five-year term before new permit limitations based upon the guidelines are required.

S. 53 would have required that EPA reopen existing permits for dischargers of conventional pollutants immediately upon publication of applicable BCT guidelines. This concern would be shared by any industry that is awaiting its BAT guidelines, and: (1) has a large number of Best Professional Judgment (BPJ) permits; or (2) is currently negotiating BPJ permits for toxic pollutants not covered by §307(a).

Second, S. 53 would have required that a permit be reopened each time a new water quality standard is issued that affects the permit. Under EPA's current regulations, this is not required for conventional, nonconventional, or toxic pollutants not regulated under §307(a). (Section 122.62(b) of EPA's regulations already imposes this requirement for health-based toxic standards developed under §307(a).) The additional uncertainty created by extending this requirement to conventional pollutants (for which there are numerous applicable water quality standards), as well as nonconventional pollutants, outweighs any of the benefits or economies to be gained by a ten-year permit.

Third, the mandatory reopener and immediate applicability of new effluent limitation guidelines and water quality standards would require permittees to negotiate detailed compliance schedules each time a change is made. Under the current regulations, for conventional, nonconventional, and §301(b)(2) toxic pollutant control requirements, a permittee can utilize the remaining life of his existing permit to begin the process of complying with any such new requirements.

Fourth, the principal advantages -- indicated above -- of a longer permit term involve: (1) the savings in EPA and state staff resources; and (2) a greater degree of certainty for industry. However, the mandatory reopener originally included in

S. 53 allowed EPA no flexibility, would have significantly increased the manpower burden necessary to respond to new permit requirements, and decreased the certainty associated with holding an approved, fixed-term, five-year permit.

In summary, S. 53 would have confounded, rather than simplified, the NPDES permit process. The mandatory permit reopener in S. 53 would have made a virtual shambles of the carefully crafted reopener provisions in EPA's NPDES permit regulations. Such a reopener -- passed by the Senate Committee in 1983 with little discussion, and no data to support its sweeping scope -- would have involved EPA, the states, and permittees in an endless series of permit negotiations with little or no attendant environmental benefit.

In mark-up on April 23, 1985 the Environmental Pollution Subcommittee chose to strike the entire provision relating to the ten year permit rather than attempt to address its problems. Therefore, the Senate bill as reported includes no provision addressing permit term.

API/NFPA had opposed the provision originally included in S. 53 but continue to support a ten year permit with a mandatory reopener provision for Section §307(a) toxic effluent standards such as is included in Section (27) of H.R. 8. Section (27) would remove the burden of unnecessary permit processing requirements while assuring adequate protection of the environment. This flexibility in permit length would enable EPA and the states with delegated authority to more effectively focus their resources on those "major" permits of greatest concern while reducing the paperwork burdens on a number of smaller facilities. API/NFPA urge the Subcommittee to continue to support this provision.

D. EPA Review of State-Issued NPDES Permits

Since the regulations implementing the NPDES program were first issued in the early 1970's, thirty-five states have moved to take responsibility for administering the program and issuing NPDES permits. A number of these states now have almost twelve years of experience with the program. Nevertheless, EPA still reviews and approves each state-issued NPDES permit. This dual review of state NPDES permits often involves EPA, state agencies, and permittees in time-consuming two or three way negotiations

still reviews and approves each state-issued NPDES permit. This dual review of state NPDES permits often involves EPA, state agencies, and permittees in time-consuming two or three way negotiations over Best Engineering Judgment type of permit conditions.

In many cases, the state agency permit writer who is most familiar with local conditions is in the best position to render a technically correct decision on a particular matter. EPA's review serves only to delay the process, and expend valuable federal and state agency staff time.

API/NFPA believe that the time has come to step back and take a look at the proper role that EPA should play in the day-to-day administration and oversight of state-administered

NPDES programs. The NPDES program has reached a sufficient level of maturity at the state level so that EPA review and approval of every state-issued NPDES permit is no longer necessary.

Rather, for those states that have effectively administered the NPDES program for more than three years, EPA's responsibility should become one of conducting a periodic program audit, rather than reviewing and approving either all, or selected, state-issued permits. If the periodic program audit turns up instances of ineffective state permit administration, EPA should have the right (after a hearing) to: (1) withdraw the state's permitting authority; or (2) return to reviewing and approving each state-issued permit for a probationary period.

This change will have two important advantages. First, the program audit would eliminate much of the manpower burden incumbent on EPA review and approval of state-issued NPDES permits. At the same time, EPA would still be assured an effective oversight role in reviewing state administration of the NPDES program. Second, permittees would no longer be caught in "best engineering judgment" disputes between state and federal permit writers on permit conditions not subject to uniform national standards.

We would like to work with the Subcommittee in developing an approach that would provide an option for periodic EPA audits of state NPDES programs, in lieu of EPA review of state-issued NPDES permits.

At a minimum, we urge the Subcommittee to consider modifications to §402(f) to require EPA to implement this Section of the Act. Under the current law, EPA is required by §402(f) to promulgate regulations which identify categories of point sources for which the Agency will waive its review and approval of state-issued NPDES permits authorized under §402(d) of the Act. Even though §402(f) was passed as part of the 1972 Act, EPA has never developed regulations to implement the Section, nor identified categories of discharges for which the Agency will waive its review of state permits.

We suggest the following modification to §402(f) to reaffirm Congressional intent that EPA move to implement the requirements of this Section in an expeditious fashion:

> [The] Not later than 180 days after the enactment of the Clean Water Act amendments of 1985. The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any state with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

In addition, in the case of states where EPA must still approve transfer of the NPDES program, we recommend the following amendment to §402(e) to accomplish a similar purpose:

> In accordance with guidelines promulgated pursuant to subsection (h)(2) of Section 304 of this Act, the Administrator is authorized, and shall consider waiving as appropriate in the case of each state submitting a program under subsection (b) of this section, to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any

category (including any class, type or size within such category) of point sources within the state submitting such program.

E. Extension of Section 301(k) Deadline to Include BCT Innovative Technology

Under §301(k) of the Clean Water Act, an industrial discharger that is subject to the requirement of achieving BAT limitations under §301(b)(2) of the Act may request a compliance extension to no later than July 1, 1987, for the installation of an innovative technology. To qualify for such an extension, the innovative technology must either produce a significantly greater effluent reduction than BAT or achieve the same level of effluent reduction as BAT at a significantly lower cost.

In the final regulations implementing this provision (49 Fed. Reg. 25978 June 25, 1984) EPA rejected the recommendation that such compliance extensions under §301(k) should be available for conventional pollutants as well, on the grounds that legislative history is not clear as to the intent of Congress to make §301(k) extensions *directly* applicable to BCT limitations.

API/NFPA believe omission of BCT from §301(k) was an oversight, as §301(k) was considered by the House and Senate conferees in the 1977 Conference prior to the resolution of the BCT issue. This argument was submitted to EPA during the rulemaking.

In implementing the regulation, EPA expressed the opinion that the legislative history was not clear, but that the Agency has sufficient authority to issue administrative orders under §309(a)(5)(A) to those facilities where, "(1) BAT pollutants constitute the major portion of the facility's discharge, and (2) it is unreasonable to treat BCT pollutants separately." API/NFPA do not disagree with this authority, and recognize in many instances this may resolve the compliance deadline issue in a facility operating with both BAT and BCT effluent guidelines. However, such a ruling provides no incentive for creative, innovative approaches to treatment in the BCT area alone, which is the situation in most of the forest industry facilities.

The July 1, 1987 deadline needs to be updated to mandate compliance within three years after the BAT/BCT compliance deadline. API/NFPA urge the Subcommittee to make such an update and extend the applicability to BCT effluent dischargers as well.

F. Clarification of the Availability of Section 302(b) Hearings in Delegated States Prior to a Discharger Being Required to Go Beyond the BAT Level of Control for Water Quality Reasons

The Best Available Technology (BAT) level of treatment was clearly established by the Congress as a stringent level of control. Recognizing that pollutant control requirements beyond the BAT level could have severe adverse economic impact on a point source subject to such requirements, the Congress provided for a hearing in §302(b) of the Act before EPA could require the discharger to install or initiate such treatment.

The public hearing would be held in order to balance the relationship between the social and economic benefits of meeting the water quality standard in question against the social and economic costs, including the possible economic dislocations to the affected community. The standard would not be applied if the benefits of the additional treatment requirements beyond BAT are not worth the costs of their application. The required hearing is an essential part of the process to determine whether additional controls are justified.

Many states have enacted water quality standards which are more stringent than necessary to protect designated water uses. If an industrial discharger is required to go beyond the BAT level of control to meet these standards because of an EPA determination, the §302(b) hearing becomes available.

The majority of states have now been delegated authority to run the NPDES program, so that final action is taken by the state rather than EPA. Unfortunately, it is not clear that such a hearing is also available when a state agency, rather than EPA, establishes such water quality-related permit conditions. This is no reason for the same right to a hearing not to apply in both instances.

API/NFPA recommend that the Subcommittee amend §302(b) to make it clear that its requirements also apply when permitting authority has been delegated by EPA to state water quality agencies.

IV. ISSUES OF CONCERN TO THE FOREST INDUSTRY RAISED IN S. 53, S. 652 AND H.R. 1509

S. 53 and S. 652, the two bills introduced by Senators Stafford and Chafee recently reported by the Subcommittee on Environmental Pollution and scheduled for consideration by the full Committee on May 1, raise two issues -- "antibacksliding" and nonconventional pollutants -- that are of significant concern to the forest products industry. H.R. 1509, a bill introduced by Congressman Oberstar and others also includes an "antibacksliding" provision. API/NFPA believe these issues can be best addressed by being removed from legislative consideration at this time.

A. Antibacksliding

S. 53 and H.R. 1509 contain a provision designed to deal with the maintenance of existing NPDES permit conditions. Section 114 of S. 53 would amend the NPDES permitting authority in §402 of the Clean Water Act to prohibit renewed, reissued or modified permits from containing less stringent effluent limitations than were in the original permit.

This is a modification of the antibacksliding language included in S. 431 during the 98th Congress. API/NFPA strongly opposed that provision, as it would have prevented any increase in the allowable daily discharge limitations in NPDES permits, regardless of the justification for such increase. It would also have prevented changes in any other permit conditions (such as monitoring and reporting requirements, or limitations on bypasses) which would have been considered "less stringent."

API/NFPA, along with a number of other industry groups as well as other interested parties, strongly indicated their opposition to the provision included in S. 431. In recognition of a number of the problems raised by the proposed language, the Senate Environment and Public Works Committee and staff spent considerable time working with industry, the environmental community and other groups in an effort to develop a more workable approach which was included in the bill introduced in January. That provision, while designed to restrict "backsliding," does recognized the legitimate necessity for changes in permits under limited circumstances. However, at the Senate Subcommittee mark-up on April 23 the antibacksliding provision once again was expanded. A provision designed to assure the protection of water quality standards was added to the amendment. H.R. 1509 includes a similar provision in §26.

API/NFPA continue to believe it would be preferable to remove the entire antibacksliding provision from legislative consideration for a number of reasons: (1) changed circumstances as may justify increased permit limitations; (2) the language will discourage future imposition of case-by-case limitations; (3) such a provision will create inequities in the requirement of uniform technology-based standards; (4) including the water quality standards provisions will once again force a reopening of a controversial regulatory issue which will only lead to further confusion and delay; and finally (5) the issue is in litigation and the Congress would be wise to set this issue aside. The following discusses each of these concerns in greater detail.

Changed Circumstances

Several examples of the type of changed circumstances which might justify increased permit limitations involve increased production or changes in -- or the addition of -- manufacturing processes. Permittees will not be able to increase their production or change their processes unless they are allowed to increase the mass limitations in existing permits. They would, of course, still be required to maintain the effluent limitation guidelines (pounds per ton) issued by EPA for the appropriate industrial categories or subcategories.

Other examples of appropriate reasons for modifying permit limitations include: (1) mistakes in setting original limitations; (2) changes in the level of pollutants in intake waters; or (3) changes justified by improved water quality modeling or monitoring.

Provision Will Result in Delay of Issuance of Permits

The language of Section 114 could also discourage the future imposition of case-by-case effluent limitations in permits. Permit writers may delay issuing renewed permits rather than issue a permit with case-by-case BAT limitations, since such limitations would then be permanently fixed in the permit even if they later proved to be unreasonable. Permittees would tend to resist and delay case-by-case permits as long as possible, to avoid accepting limitations more stringent than those that the guidelines might later require of their competitors.

Inequities Will Occur

Perhaps the most important policy reason to omit this provision is that if BPJ permit limitations, once established, could never be relaxed, companies that moved first to negotiate their NPDES permits and commence the required treatment, prior to the issuance of national guidelines, would be at a disadvantage in comparison to plants which have delayed this permit process and the installation of necessary controls. In such cases, the installation and operation of more extensive treatment than required by the national guidelines -- where such treatment is not needed to protect water quality standards -- could be both unfair and unnecessary and could place a facility at a competitive disadvantage. In fact, such a requirement is in direct conflict with one of the basic premises of the Clean Water Act -- the requirement of uniform technology-based standards developed on an industry-by-industry basis.

Similarly, there may be instances of prior inaccuracies in establishing effluent limitations based on water quality standards, or where improvements in water quality have occurred due to improved treatment by others or control of nonpoint sources. In these cases it may not be reasonable to categorically refuse to relax stringent treatment requirements which were previously necessitated by water quality problems. Clearly, in such cases permit writers should be afforded some measure of flexibility to respond to local conditions.

Incorporation of Water Quality Based Limits Will Further Complicate an Already Highly Complex Program

API/NFPA understand the expansion of the antibacksliding provision to apply to permit limitations based on applicable water quality standards was added partially at the urging of the National Wildlife Federation (NWF). NWF has submitted extensive testimony to both the Senate and House Committees, arguing in great detail, that the current water quality standards regulations are not working and therefore further legislation is needed.

In their testimony NWF used the Allied Paper Company in Michigan as an example as to why additional federal legislation is needed. Allied Paper did request several changes in their permit, including an increase for discharge numbers for the winter months. Biological treatment processes vary considerably depending on temperature conditions and acknowledgment of such seasonal variations are not uncommon in permits. However, after review of the permit application, the State of Michigan denied Allied's request. Contrary to the NWF argument that this proves that a greater degree of federal regulation and controls are necessary, API/NFPA would argue that the Allied situation is an example that the water quality standards regulations process is working correctly, and no further legislation is necessary at this time.

The subject of water quality standards and wasteload allocations was debated at great length during the last Congress (see attached for API/NFPA's previous testimony). An issue of considerable controversy and complexity, only after many months of hard work and negotiation were the House, Senate, EPA and the concerned public able to come to an agreement and the regulations were finally promulgated on November 2, 1983. API/NFPA believe the expansion of the antibacksliding provision is not necessary and will only lead to further delay and confusion as new regulations will be required.

Another NWF example relates to the State of Wisconsin's new wasteload allocation regulations. The testimony implies the state has authorized an increase in the loadings on the river. Rather, the state, in cooperation with the impacted mills, has agreed to reallocate the wasteload allocations that already exist. This is consistent with the intent of the Clean Water Act which recognizes the right and responsibility of the states to establish their own water quality standards.

Rather than be used as an example of backsliding, the Fox River is an example of good application of the requirements of the Act. Each of the facilities on the river are governed, first by their effluent guidelines and, second, by the specific water quality standards as set by the state for that segment of the river.

Further, we have some concerns that the amendment will result in discouraging continued refinement and development of wasteload allocation models. NWF argues that potential changes in the water quality standards will "encourage polluters to divert resources away from designing and installing treatment facilities and into developing new models." NWF totally overlooks the requirement that, for a permittee, meeting the requirements for water quality standards is _in addition_ to the technology-based effluent guidelines. Developing models is not done in lieu of meeting guidelines, but as an additional step in the process.

The National Council for Air and Stream Improvement (NCASI), the highly respected research arm of the pulp and paper industry, is especially concerned with the apparent lack of understanding of the utility of modeling in sound water quality management decisions. Attached to our statement is a letter from NCASI expressing their concerns in greater detail.

Antibacksliding is Currently in Litigation

Finally, the antibacksliding provision is one of the issues before the D.C. Circuit Court as part of the NPDES litigation. EPA, the National Resources Defense Council (NRDC) and a number of industries including API/NFPA, are parties to this suit. Traditionally, the Congress has been reluctant to further complicate issues that are in litigation by addressing them simultaneously in legislation.

API/NFPA would urge the Subcommittee to set this provision aside.

B. Nonconventional Waiver Deadline

Section 105 of the Senate Subcommittee bill includes a provision which would prohibit application of a waiver under §301(g) (nonconventional pollutants) after January 3, 1985. Inclusion of such a provision in legislation at this time is premature and API/NFPA urge that the Water Resources Subcommittee not include such a provision in their bill.

The category of nonconventional pollutants was added to the Clean Water Act in 1977 in recognition of the fact that, in addition to conventional and toxic pollutants, there existed a large number of pollutants about which there was not yet sufficient data to determine their effects on human health and the environment. The Conference Committee established the third category of pollutants -- nonconventionals -- in order to deal with those yet "unknown" pollutants. Sufficient safeguards are included in §301(g) so that such a pollutant must be treated to the BAT level unless the permittee is able to prove that a lesser level of treatment will not interfere with the water quality.

However, the 1977 Act provided little specific guidance as to what criteria the EPA Administrator should use in establishing effluent limitations for nonconventionals. While EPA has considered limits for a few nonconventional pollutants, the agency has engaged in little regulatory activity and did not publish the proposed regulations to establish the procedures, standards and criteria for granting water quality waivers under §301(g) until August 7, 1984.

The Clean Water Act amendments mark-up vehicle, as reported by the Senate Subcommittee on April 23, includes a provision which would prohibit waivers for nonconventional pollutants (§301(g)) unless an application had been filed by January 3, 1985. Applications pending on the date of enactment of these amendments would be ineligible unless they had received a tentative approval from EPA.

It is important to note that the Senate Subcommittee bill also includes a new provision in Section 106 which amends Section 304 of the CWA and directs the Administrator to establish a schedule for review and revision of previously promulgated effluent guidelines as well as identification of additional categories of guidelines, with emphasis on review of toxic and nonconventional pollutants in particular. Therefore, most likely the Agency will be publishing additional guidelines in the future which will address those heretofore unaddressed nonconventional pollutants. Future permittees would have absolutely no choice but to go to a BAT level of treatment regardless of the impact on water quality if such an arbitrary deadline was incorporated into the Act.

Supposedly, the Subcommittee's amendment was designed to respond to assertions that: (1) the §301(g) waiver process has placed an administrative burden on EPA; (2) the section is used as a means to delay compliance with BAT requirements; and, (3) a large number of the pollutants listed as nonconventional are, in fact, toxic and should be treated at BAT level in order to avoid adverse environmental effects.

Our understanding is that EPA has concerns with §301(g) because of the potential resource ramifications on the Agency if they are flooded with a large number of nonconventional waiver applications. To our knowledge no data exist to substantiate such a concern. Further, our reading of the §301(g) provision is that it gives the Administrator considerable flexibility in determining which pollutants he might consider for a waiver. The Conferees in the 1977 Conference Report noted that,

> "The Administrator is expected to expedite these determinations. Whenever he determines that there is substantial likelihood that a petition for a modification will not prevail on the merits, the conferees expected the Administrator to reject the application so that the process of compliance can begin."

The proposed regulations published by EPA (49 Fed. Reg. 31462 1984) to implement §301(g) are very stringent and are not written in a fashion designed to encourage waiver applications. The application requirements alone are likely to discourage most applications. In fact, in our comments on the proposal, API/NFPA noted that

> ". . . each provision by itself, while very stringent, does not seem entirely unreasonable, but when taken as a whole has a synergistic effect. The total becomes more than its parts. It can only result in no applicant being able to meet all the requirements for such a waiver when coupled with the short time frame for such applications."

The statute itself limits the opportunity to apply for a waiver process and all of the burdensome data submission requirements in order to delay implementation of their effluent guidelines.

In his floor statement accompanying the introduction of S. 652, Senator Chafee expressed concern that a number of the nonconventional pollutants are "highly toxic." If a pollutant is harmful or has toxic effects it should be designated a toxic and removed from the nonconventional category. Such listing would make it unavailable for the §301(g) waiver.

Senator Chafee further noted in his floor statement that, "These pollutants are largely unknown and very little data exists on their toxicity and effect on human health." To arbitrarily close off the waiver possibility at this point will, in effect, force "treatment for treatment's sake" for those pollutants currently considered to be nonconventional but which at a later time may be determined to be non-toxic and not harmful to human health. Such action will result in enormous costs, and in many cases, with no benefit to the environment.

API/NFPA believe the EPA Administrator has sufficient authority and flexibility in order to determine which pollutants are appropriately addressed in the nonconventional category. At the same time §301(g) does operate as a "safety valve" in order to possibly prevent the requirement of unnecessary treatment. Therefore, API/NFPA urge that the Water Resources Subcommittee not consider such a provision at this time.

V. OTHER ISSUES

API/NFPA are well aware of the efforts expended by the Subcommittee during the 97th and 98th Congresses in an effort to develop responsible amendments to the Clean Water Act.

Upon reflection and review of the vast number of issues, testimony and debate on the Clean Water Act in the last few years, API/NFPA conclude that on balance the Subcommittee has responded in a reasoned, responsible fashion to an array of subjects. The following comments briefly address those issues of interest to the forest industry.

A. Nonpoint Source Management Program

API/NFPA have been actively involved with state and federal nonpoint source pollution control efforts since 1975. We are interested in controlling nonpoint source pollution in order to: (1) foster good forest management; and (2) avoid at our manufacturing facilities unnecessary treatment -- beyond Best Conventional Technology -- for biochemical oxygen demand and suspended solids in streams where uncontrolled nonpoint sources contribute to these water quality problems.

The forest industry worked closely with this Subcommittee during the last Congress in an effort to develop a reasonable proposal for dealing with nonpoint sources (our testimony presented during the 98th Congress before both the House and Senate Committees is attached). Section 112 of H.R. 8 is identical to H.R. 3282, as reported by the Public Works and Transportation Committee in 1984 and passed by the House.

Section 112 is designed to provide a modest amount of federal direction and support to states in order to assist in the implementation of nonpoint source control programs on priority water bodies. We believe such a program is an important beginning for the long-range task of improving and protecting the nation's waters impacted by nonpoint source pollution. API/NFPA supported H.R. 3282 and continue to concur with its reasoned approach.

B. Pretreatment

This industry, along with many other industries as well as state and local groups, urged Congress to enact legislation designed to correct the basic statutory flaws in the pretreatment program. Several recommendations were given serious consideration, but never enacted. However, the Subcommittee's consideration of such legislation did serve as a partial impetus to encourage EPA to establish the Pretreatment Implementation Review Task Force (PIRT). While EPA has not yet published the final PIRT report, if the Agency implements the recommendations of the Task Force, a number of the fundamental weaknesses of the program may be resolved. The Subcommittee's decision to hold a legislative solution in abeyance may have served to force EPA, as well as the vast community impacted by the program, to negotiate in good faith to resolve a number of the implementation problems.

C. Dredge and Fill Program (Section 404)

A wide variety of organizations urged the Congress to change the Dredge and Fill Program (Section 404) during the last two Congresses. Again, the Subcommittee carefully reviewed a number of proposals. As the Subcommittee knows, API/NFPA have been deeply involved since 1975 in the implementation of the §404 program. We testifed on this program in 1975, 1977, 1979 and 1983. As a result of clarifications in 1977, many normal forestry, farming and ranching activities are currently exempt from §404 permit requirements. Therefore, our industry faces neither the degree of exposure to the program that we did in the past, nor the exposure presently faced by some other industry groups. We opposed legislative change to the program during the last Congress and continue to do so now on the grounds that such change would be premature.

Again, we commend the Subcommittee for its wisdom in reviewing the issues and concluding the program needs a period of relative administrative stability before a comprehensive Congressional review is begun. Legislative action on §404 may ultimately be necessary. However, API/NFPA continue to believe it is preferable for the Subcommittee to defer legislative action at this time.

D. Construction Grants Study

Title II of the Clean Water Act was last amended in 1981 when Congress made a number of reforms to the program, including reducing the categories of construction eligible for federal funding and reducing the federal share from 75% to 55%.

Recognizing the shifts occurring in the level of federal spending, over a year ago EPA took the initiative and set up a task force to study alternative approaches to funding the construction grants program. The study includes a number of recommendations as to how best to bring the federal funding involvement in the program to a close. Both the House bills, H.R. 8 and 1509, as well as the Senate Subcommittee bill recommend changes to the program.

In light of the need to make adjustments in order to reduce the federal deficit as well as assuring that the remaining needs of the municipal systems are provided for in an orderly fashion, API/NFPA is pleased to note the level of effort from all parties (Congress, EPA, the public) to develop a reasoned phase-out of the high level of federal involvement in the construction grants program. API/NFPA have suggested for a number of years that the Clean Water Act could be implemented more effectively and more economically if greater responsibility and authority was returned to the state and local level.

While considerable questions remain on the appropriate levels of funding and the respective roles and responsibilities at the federal, state and local levels, both EPA and this Subcommittee should be commended for their efforts to address this problem. API/NFPA believe the hearings conducted by the Subcommittee will afford ample opportunity for clarification of these remaining issues.

VI. CONCLUSION

In conclusion, we reaffirm our support for the 1972 Federal Water Pollution Control Act and the water pollution control programs that have resulted since its passage. The 1972 Act and its 1977 amendments provide the proper basis for additional water quality improvement as we move through the 1980's. At the same time, we believe that modest refinements to a number of Clean Water Act programs will enhance, rather than inhibit, this desirable goal. We look forward to working closely with the Subcommittee to craft modest changes to the Act.

NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT, INC.
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Duane W. Marshall
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April 30, 1985

Ms. Pat Hill
API Environment/Health Program
1619 Massachusetts Avenue NW
Washington, D.C. 20036

Dear Pat:

The position being taken by the National Wildlife Federation with regard to progressive use of surface water quality models for refinement of wasteload allocations suggests an inadequate understanding of the utility of modeling in sound water quality managment decisions. This judgement is based upon an examination of the Federation's position paper carried out by Dr. Raymond Whittemore, a lead investigator in NCASI water quality modeling studies carried out at our Northeast Regional Center. The following reflects Dr. Whittemore's observations.

If the National Wildlife Federation is sincere in its support of an aggressive, mandatory non-point source pollution control program, it should recognize that implementing such a program would require mathematical modeling tools/techniques for identifying the merits of alternative control strategies. In many instances, the effect of non-point source pollution on in-stream water quality can only be assessed through the precise modeling of point sources. An ability to do so is dependent upon the progressive application of credible peer reviewed contemporary models and water quality monitoring data of acceptable quality. Properly assessing the impact of point source discharges also requires application of the most current knowledge about (a) ultimate BOD kinetics and sediment oxygen demand (SOD), and (b) related measurement methods.

Thus "new models" and "new mathematical methods" would likely become critical factors in development of future non-point source control strategies. In going further, the same good science and engineering in water quality assessment should be applied to all pollution control strategies. Advanced modeling may well identify non-point sources as the principal impediment to achieving water quality at specific locations. There can be little justification for compelling the regulated community to endure the expense of operating advanced treatment systems installed to comply with early waste load allocations that did not properly reflect the significance of point sources. Such a consequence may well result from the use of relatively primitive models.(There is little question over the propriety of using advanced models in circumstances where earlier models are found to underestimate the importance of point sources.)

In judging the conclusions that may have been drawn from early estimates of assimilative capacity it should be recognized that the biological and chemical characteristics of some point source discharges have changed over the last 15 to 20 years. This change is a result of the application of treatment technologies installed to meet either technology based or water quality based effluent limitations. The water quality impact of a unit BOD discharge in the 1960's is not the same as the same unit discharge in the 1980's. For example, NCASI research on the ultimate BOD of pulp and paper industry effluents has shown that the in-stream biochemical oxidation rate for treated effluents is substantially lower than that for untreated effluents. Thus early modeling derived estimates of assimilative capacity may well have overestimated the impact of point source discharges, resulting in limitations more stringent than required to achieve water quality goals.

Technical professionals intimate with modeling acknowledge that water quality modeling should be an iterative, evolutionary process. The EPA Wasteload Allocation Guidance Manuals and the Center for Water Quality Modeling (Athens, Georgia) reinforce this point by providing training and guidance in the use of state-of- the-art modeling tools. In a few instances, the Modeling Center has been involved in advancing state-of-the-art by promoting the development of new models or funding research to refine modeling techniques. The innovative permit considerations are natural extensions of this forward thinking policy. The science of modeling conventional pollutants should not be stagnent.

With regard to advanced modeling, NCASI has observed that the major financial burden for model improvements generally rests with the regulated community. State agency personel generally welcome new data sources, and view positively the interaction and coopertion with experienced modelers from the private sector and academic areas. NCASI has been involved in recent studies where this interaction, education, and spirit of cooperation has significantly improved the ability of state agency personnel to make informed water quality and wasteload allocation assessments. The process has been well identified in a recent EPA report on Planning and Managing Cooperative Monitoring Projects (EPA 440/4-84-018, July 1984).

The "margin of safety" and "reserve capacity" points raised by NWF are indeed valid questions for state agency personel. Although these questions relate to modeling of water quality, they should be considered separately from questions of model credibility and reliability. Equating the policy decision of "margin of safety" with model reliability has a negative effect on research and advances in modeling state-of-the-art. Furthermore, the very concept of a "reserve capacity" suggests a conscious decision to eventually allocate a resource. How and when that resource is to be allocated is best left to local decision makers.

Our staff is more than willing to elaborate further upon the points raised above, as well as address other questions that may arise in defining the appropriate role of water quality modeling in waste load allocation decisions.

Very truly yours,

Duane W Marshall
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DWM:gs

Statement for the Record
of

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On Behalf of the
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and the
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Before the

Subcommittee on Water Resources
Committee on Public Works and Transportation
of the
United States House of Representatives

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I. INTRODUCTION

Good morning. I would like to thank Chairman Roe and the members of this Subcommittee for allowing me to testify this morning on behalf of the American Paper Institute and the National Forest Products Association (API/NFPA) with respect to Amendments to the Clean Water Act (CWA).

My name is Rod Glover. I am manager of Environmental Technology and Regulatory Affairs for the Procter & Gamble Corporation in Cincinnati, Ohio. I also serve as Chairman of the API/NFPA Clean Water Act Task Group. API/NFPA are national trade associations representing over 2,000 member companies who own and manage forest lands, and manufacture pulp, paper, and solid wood products. API/NFPA members have a direct interest in the effective implementation of the Clean Water Act.

Since 1972, I have been personally involved in the implementation of the Clean Water Act through my employer's support for its objectives. As part of that effort, I have also been an active member of several API/NFPA water committees and task forces.

II. FOREST INDUSTRY SUPPORT FOR THE CLEAN WATER ACT

API/NFPA's concern with the country's water resources predates the 1972 Federal Water Pollution Control Act. API/NFPA support the Act, as modified by the 1977 amendments. The 1977 record demonstrates that we were one of the industry leaders in proposing reasonable and constructive changes to the Act. The implementation of the Act today reflects the mid-course corrections we recommended, and this Subcommittee adopted, in 1977. These corrections did not modify or delay any of the basic objectives of the Act, but made it more effective.

Clearly, the most far-reaching and important 1977 amendments to the Act were those which distinguish between the treatment requirements for toxic and conventional pollutants. In 1977, Congress recognized the need to address the problem of toxic pollutants while, at the same time, selectively reducing excessive regulation of conventional pollutants. Congress determined that the costs of additional treatment should not be excessive in light of the effluent reduction benefits to be achieved. Thus, Congress created the concept of BCT -- best conventional technology.

At the same time, Congress decided to retain technology-based limitations as the basic foundation of the Act. This is a decision that we supported in 1977. I want to make it very clear at the outset of my statement that this is a decision which API/NFPA continue to support today. More importantly, we see no reason to move away from the technology-based approach of the 1972 Act as Congress commences the current review of the statute.

Over two and one half years ago, API/NFPA began an intensive review of the Clean Water Act in order to determine what changes, if any, are necessary to improve its effectiveness. We looked, in particular, for additional opportunities to apply the guiding 1977 philosophy of "avoiding treatment for treatment's sake."

After concluding our review, we believe that the Act can be more effectively focused in two ways: (1) eliminating costly and unnecessary requirements which do nothing to improve water quality; and (2) concentrating the decision-making process at the most efficient level of government to deal with a particular program -- often the state or local agency.

The amendments recommended by API/NFPA are few in number and modest in their impact. They constitute a further refinement of the Act. In the following statement for the record, we will discuss a number of changes which we advocate. We will also review those provisions of interest to us in (1) H.R. 3282, introduced by Public Works and Transportation Committee Chairman, James Howard; and (2) H.R. 4037, introduced by Congressman James Oberstar. In addition, we will reassess -- as will the Committee, we hope -- some of the amendments included in a package submitted by the Administration for consideration in the second session of the 97th

Congress. Finally, we will discuss a number of issues of concern to us that have been raised during the House and Senate Clean Water Act deliberations, to date.

III. API/NFPA PRIORITY LEGISLATIVE ISSUES

At the conclusion of our own review of the Clean Water Act, we identified four major areas where modest reforms would be helpful: (1) simplification of the pretreatment program; (2) extension of the BAT/BCT compliance deadlines; (3) lengthening the life of NPDES permits from five to up to ten years; and (4) eliminating redundant EPA review of state-issued NPDES permits. The first three of these issues are addressed by either H.R. 3282, S. 431 (reported by the Senate Environment and Public Works Committee on September 21, 1983), and/or the Administration's 1982 proposals. Below, we provide our views on the best way to deal with each area of concern.

A. Pretreatment

We are pleased that both Section 7 of S. 431, and Section 6 of the Administration's 1982 proposal recommend some changes to the pretreatment program. Changes to this program are considered to be among the most essential by the forest industry, as well as by other groups. The present program is clearly in need of redirection -- it has failed to get off the ground.

1. The Pretreatment Program -- Our Experience to Date

The forest industry supports the general concept of pretreatment of certain industrial wastes, as envisioned in Section 307(b) in the 1972 Federal Water Pollution Control Act. We recognize the need for pretreatment of industrial pollutants that: (1) are not susceptible to treatment in publicly-owned treatment works (POTWs); (2) would interfere with the operation of such a municipal system; or (3) would interfere with the intended disposal procedure for the sludge. Consequently, we did not object to EPA's 1973 regulations which implemented, for the first time, the so-called general pretreatment program.

In 1977, Congress amended Section 307(b) to provide POTWs with the opportunity to offer "removal credits" to their industrial clients. These credits would apply to any toxic pollutants which the POTW could effectively treat. Industries gaining removal credits from their POTWs would be able to offset them against their pretreatment requirements for the specified pollutants. EPA was charged with the responsibility of developing regulations to implement the removal credits provision.

The removal credits program, as envisioned by Congress in 1977, was complex but seemed workable. The credits were to serve as an incentive to both industry and the local community to encourage the construction and operation of cost-effective, regional treatment.

API/NFPA supported the removal credits approach in 1977. In our view, this provision was designed to serve as a continuing incentive for local industrial participation in POTW systems. In addition, removal credits were designed to assure that the removal levels which justified the local credits would be maintained by the municipality through the operation of a sound POTW operation and maintenance program, as well as an effective pretreatment program. Thus, the removal credits approach was designed to result in better POTW operation as well.

Unfortunately, after EPA promulgated the general pretreatment regulations in June 1978, it became obvious that the Agency's interpretation of the law was considerably different from ours. EPA failed to consult with the POTWs, or to take into account the basic needs of local agencies in framing these regulations. The regulations EPA proposed for removal credits were so complex and burdensome as to be unworkable.

In addition, EPA has, in some instances, encouraged local POTWs to force long-term industrial customers to install pretreatment for fully compatible pollutants such as Biochemical Oxygen Demand (BOD). This 1978 policy disregarded the stated objective of the act to encourage joint treatment of compatible wastes. This issue represents our industry's single, greatest concern with the program.

Litigation, followed by settlement negotiations, appeared for a time to have solved the worst of these problems. However, EPA failed to effectively implement the negotiated settlement with respect to compatible pollutants in the January 28, 1981 general pretreatment regulations (46 Fed. Reg. 9404). In addition, there is evidence that municipal treatment authorities such as Los Angeles and Chicago have now become convinced by EPA that it will be futile for them to implement the removal credit system.

On September 28, 1982, EPA published a proposal to revise the removal credit portion of the general pretreatment regulations (47 Fed. Reg. 42698). EPA made a considerable number of improvements in the removal credits system. API/NFPA appreciate the Agency's efforts to remedy the problems associated with the program. However, the proposed regulations -- while reducing some of the complexities of the January 28, 1981 regulations -- do not resolve the basic problems associated with the removal credits program.

The September 1982 proposal would allow POTWs to calculate removal of seven toxic, heavy metals plus cyanide on the basis of a "national removal rate." While this "national removal credit" will greatly reduce the demands on a POTW to develop its own credits, the list is extremely limited in size. Moreover, it is further constrained by requiring POTW compliance with secondary treatment in order to use the national credits. EPA estimates that more than 45% of all POTWs will be able to qualify for the national rates. The Association of Metropolitan Sewerage Agencies (AMSA) estimates, however, that the percentages will be far lower.

While simpler than the 1981 removal credits system, EPA's September 1982 proposal is still too complex in the view of AMSA and other interested groups. Without the willingness and ability of major POTWs to apply for (and implement) a removal credit system, the program will simply not work, confounding the Congressional intent to avoid redundant treatment.

In our view, the problems associated with the removal credits program are a reflection of basic statutory flaws in the pretreatment program. We believe that the issues described below can be effectively resolved only through legislative change. Specifically, API/NFPA believe that amendments to the current pretreatment program are needed to resolve two major concerns: (1) we have no assurance that EPA will not force POTWs to require pretreatment of compatible, nontoxic pollutants as an alternative to adequate municipal waste treatment; and (2) the toxics regulatory scheme requires redundant treatment of toxic pollutants, and does not have the support of the local agencies.

2. Redundant Treatment of Compatible Pollutants Must Be Avoided

In general, API/NFPA members that discharge into POTWs do not discharge toxic pollutants. Most of our industry effluents are characterized by the presence of conventional pollutants such as Biochemical Oxygen Demand (BOD) or total suspended solids. These pollutants are similar in many respects to domestic wastes, and are compatible with POTW treatment capabilities. Thus, EPA policy, which has encouraged or required pretreatment of these conventional wastes, is of critical concern to API/NFPA.

The House/Senate Conference Report accompanying the 1972 Act clearly states that:

> Pretreatment of biological waste that is compatible with the treatment provided by a publicly-owned waste treatment plant into which such waste is introduced may not be necessary....In no event is it intended that pretreatment facilities be required for compatible wastes as a substitute for adequate municipal waste treatment works. (Leg. History; 1972 FWPCA; Vol. 1; page 313)

In our view, Congress was correct in encouraging the joint treatment of similar municipal and industrial wastes wherever possible, as the most cost-effective approach to regional treatment needs. In some cases, there is also a technical benefit to this approach. Many industrial wastes, although highly treatable and biodegradable in biological systems, lack nutrients such as nitrogen and phosphorus compounds. Domestic wastes have an excess of these compounds. It is, therefore, very efficient to treat both categories of wastes by mixing them in a common treatment facility.

However, EPA practice since 1978 has been to encourage cities with inadequate or poorly operated POTWs to require pretreatment of conventional pollutants by their customers, rather than to correct the problems of the POTW. Appendix A of this statement provides a case study outlining this problem.

API/NFPA recognize that, in some instances (for example: large volume, seasonal discharges), it may be less costly to require corrective measures at the industrial facility than to increase the size of a POTW. In addition, large, intermittent discharges of compatible pollutants may be disruptive to some POTWs, and may require some form of flow containment and controlled release. However, these types of determinations are best left to individual communities. They are not a matter that should be prejudiced by an EPA policy.

At the time of the 1979 settlement agreement discussed above, EPA agreed to include the following comment in the revised regulations:

> This provision is not intended to require pretreatment for compatible wastes as a substitute for adequate municipal treatment. When difficulties arrive in meeting NPDES permit conditions, it is the responsibility of the POTW to come into compliance with its permit. The POTW should consider a solution that is cost-effective and equitable and consistent with the goal of joint treatment.

As you may note, this comment is very similar to the language quoted earlier from the 1972 Act's Conference Report. It did not introduce a new or radical concept to the program. However, in the January 28, 1981 revised final regulations, EPA removed, without reasonable explanation, the above comment from the body of the regulations. The Agency simply noted in the preamble that it had been removed. Even though these elements of the

January 28, 1981 regulations were remanded to EPA for revision by the U.S. Court of Appeals for the Third Circuit on September 20, 1983, we have no evidence that the Agency is reconsidering this counterproductive past policy.

Consequently, we are pleased that language has been included in both S. 431 as reported by the Senate Environment and Public Works Committee, and the Administration's 1982 proposal, which makes it clear that Congress does not intend EPA to require pretreatment of compatible pollutants that could reasonably be handled by a well designed or operated POTW. We strongly urge this Subcommittee to adopt a similar measure in order to correct a vexing problem of long standing with EPA's administration of the general pretreatment program.

3. Priority Pollutants -- A More Efficient Approach Is Needed

As previously indicated, priority or toxic pollutants are not a major issue for our industry. However, we do have some potential concerns in this area. Moreover, we believe that EPA cannot implement a workable pretreatment program until there is a more effective, appropriate means of addressing controls for toxic pollutants. The complexity and rigidity of the current pretreatment program will only produce more delays in implementing any program for the pretreatment of toxic pollutants.

Other reviewers of the program have come to similar conclusions. The House Public Works and Transportation Committee's Oversight and Review Subcommittee concluded in December 1980 that:

> The [pretreatment] requirements are unworkable...and certain to lead to costs totally out of proportion to any environmental benefits derived. (House Rept. No. 96-1; page 41)

Further, in testimony before the House Water Resources Subcommittee in July 1982, EPA expressed the concern that the pretreatment program lacks the flexibility to recognize and reward local responsibility and expertise, or to provide incentives for expansion of the state and local role. The EPA Deputy Administrator, in his House testimony on July 27, 1982, further noted that:

> Municipalities and local authorities have come a long way in developing experience and ability to address local pollution control problems. We estimate that 80 percent of the large POTWs and 39 percent of the smaller POTWs have made substantial progress towards instituting adequate local pretreatment programs. Furthermore, our estimates indicate that 65 percent of the heavy metals and 37 percent of the toxic organics from indirect industrial discharges are currently being removed through local pretreatment efforts. (EPA Testimony, page 56)

It is important to note that these are 1982 figures. Additional POTWs have implemented pretreatment programs in the past eighteen months.

Local POTWs should have the opportunity to demonstrate their ability to control toxic discharges. We supported the Administration's proposed changes to the pretreatment program in 1982. We also supported the concepts embodied in Section 7 of S. 431, as introduced on February 3 of this year. Both provisions recognize that a properly operated POTW, with sufficient safeguards (including adequate monitoring and enforcement), can effectively implement a pretreatment program.

Unfortunately, during Committee deliberations the Senate elected to delete provisions dealing with this problem. Consequently, S. 431 as reported does not address the important problem of redundant treatment of toxic pollutants under the current program.

The lack of Senate Committee action was more the result of the difficulty in agreeing upon a particular approach, rather than a perception that change is not needed. Indeed, the Report accompanying S. 431 recounts the difficulties with the present program and concedes that:

> Even though many Members of the Committee favored some type of modification, none could be agreed upon. An alternative program could not be found that could reasonably be expected to protect against pass through and sludge contamination without being so restrictive that no facility could apply. (Senate Rept. No. 98-233; page 5)

The September 20 Third Circuit decision has exacerbated, rather than resolved, many of the problems associated with EPA's current removal credits policy and combined waste stream formula. API/NFPA urge the Subcommittee to act affirmatively on a program designed to provide additional flexibility to POTW's in implementing pretreatment requirements. We believe that the Administration's 1982 proposal represents a good starting point for the Subcommittee's deliberations.

B. BAT/BCT Industrial Compliance Deadline Extension

The extension of the current July 1, 1984 BAT/BCT compliance deadlines represents an issue where there appears to be a general consensus concerning the need for Congressional action this year. Section 4 of H.R. 3282 amends the current Act to require compliance with BAT/BCT requirements within three years after EPA issues the effluent limitation guidelines pertinent to a particular industry. S. 431, as reported, takes a slightly different approach, requiring compliance with BAT/BCT requirements, "not later than three years after promulgation of the effluent limitations, or three years after July 1, 1983, whichever is later (but in no case later than July 1, 1987)." The Administration's 1982 proposal provided a simple extension of the current deadline until July 1, 1988.

All three of these proposals to extend the compliance deadline dates are realistic responses which take into account the delays experienced by EPA in promulgating BAT/BCT effluent guidelines. Simply stated, industry will have insufficient time to meet the present compliance deadlines based upon EPA's published time schedule for promulgating the BAT/BCT effluent guidelines.

After reviewing each of the three proposals, API/NFPA support the approach taken in S. 431. In our view, S. 431 provides industry with a date certain and sufficient lead time to achieve compliance with BAT/BCT requirements, while still retaining a statutory compliance deadline to encourage EPA to move promptly toward promulgation of final effluent limitation guidelines for all industrial categories.

C. NPDES Permit Term and Reopener Provisions

The National Pollutant Discharge Elimination System (NPDES) -- perhaps more than any other Clean Water Act program -- has been complicated by numerous, and often conflicting, administrative reforms, rulemaking actions, and judicial decisions. Under current procedures, it may take up to three years to negotiate a five year NPDES permit for an industrial facility.

One change that would substantially reduce the current administrative burden associated with the NPDES program involves extending the term of NPDES permits to up to ten years. This concept is reflected in both the Administration's 1982 proposed amendments, and S. 431 as reported.

For EPA and the state agencies assigned the responsibility of issuing NPDES permits, extending the length of the permit would allow the staggering of permit renewals and, thus, reduce the annual permitting workload. This change would also prevent large permit backlogs from accumulating in the future.

In addition, from industry's perspective, the ten year permit would recognize that pollution control investments are expensive, and that once made, the discharger requires a reasonable certainty that his investment will have a useful life before he is required to make a new one. Moreover, the ten year term is particularly useful in providing an industry a longer time against which to write-off the cost of the pollution control equipment required by the permit.

The question of lengthening the term of the NPDES permit invariably raises the issue of appropriate reopener provisions to ensure necessary environmental protection. Section 10 of the Administration's 1982 proposal retains existing law and Agency procedures in this area, requiring that a permit be reopened when a new health-based toxic pollutant standard is developed under the provisions of Section 307(a) of the Act. API/NFPA support Section 10 of the Administration's 1982 proposal.

Unfortunately, the approach taken in S. 431 is substantially more complicated, and ultimately undesirable. S. 431 would modify Section 402(b)(1)(B) of the Act to extend the life of NDPES permits from the current five-year term to, "fixed terms not exceeding ten years." The length of permits which involve waivers or other modifications would be left at five years. This change is similar to the Administration's proposal.

Our problems arise with the second portion of the amendment which would create a new Section 402(b)(1)(D) requiring that permits:

> (D) shall be promptly modified when new or revised requirements under Sections 301, 302, 303, 304, 307, 403, or 405 are established which are more stringent than any requirement in the permit or which control pollutants not limited in the permit and such modification implements these new or revised requirements. (Emphasis added.)

This provision creates a mandatory permit reopener any time there is a change in applicable effluent limitations, water quality standards, ocean discharge criteria, or sewage sludge disposal regulations.

Such a requirement would substantially affect EPA's existing permit modification and reopener provisions in the May 19, 1980 Consolidated Permit regulations. In our view, this amendment could work to destroy much of the stability of the current five year NPDES permit, rather than provide additional certainty through the ten year term. The change would put many NPDES permittees at a disadvantage compared to the present system.

Under EPA's current regulations, there are a number of situations which justify modification of an existing permit. A few are mandatory under the circumstances set forth in the regulations; others are permissive and can be triggered by a permittee. The causes which justify a permit modification are delineated at 40 CFR §122.15. In the introduction to this Section, the regulatory language states that, "if cause exists, the Director _may_ modify or revoke and reissue the permit." (Emphasis added.)

Of greatest relevance to the proposed ten-year permit amendment, under the provisions of Section 122.15(a)(3), permit limitations based upon effluent limitations guidelines or water quality standards can be modified if the underlying guidelines or standards are changed. However, under the current regulations a permit writer's decision to reopen a permit is discretionary under these circumstances. Modifications are made at the request of the permittee and, thus, would not be automatically invoked. Section 122.15(a)(3)(i)(C) requires the permittee to, "request modification...within ninety (90) days after _Federal Register_ notice of the action on which the request is based."

Looking at the issue more broadly, reopening and modifying a permit is a discretionary responsibility under all of the situations outlined in 40 CFR §122.15. As indicated above, the only _mandatory_ reopener in EPA's current regulations is found at 40 CFR §122.62(b) and applies only to the health-based toxic pollutant standards developed under the provisions of Section 307(a) of the Act. Section 122.62(b) of the regulations requires that:

> If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Director shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition. (Emphasis added.)

This is the only mandatory reopener in effect at the present time since even the Section 122.62(c) reopener for implementing more stringent BAT effluent limitations guidelines developed for toxic pollutants under Section 301(b)(2) is not required for any permit issued after July 30, 1981 (40 CFR §122.62(c)(2)).

Summing up, under EPA's current regulations -- which Section 10 of the Administration's proposal builds upon -- modification of NPDES permits is not mandatory to incorporate: (1) the requirements of more stringent effluent limitations guidelines for conventional and nonconventional pollutants; (2) the requirements of more stringent effluent limitations guidelines developed for toxic pollutants under the provisions of Section 301(b)(2) for any permit issued after July 30, 1981; (3) water quality based requirements for conventional and nonconventional pollutants; and (4) water quality based requirements for toxic pollutants unless these requirements are developed under the provisions of Section 307(a).

To date, no one has made a statement of any sort during Congressional review of the Act, indicating that EPA's existing permit reopener provisions are inadequate. The changes in S. 431 are without basis in the Senate's hearing record.

However, as is obvious from the above review, a mandatory reopener provision, as envisioned in S. 431, is substantially broader than EPA's current regulations. The proposal raises four major concerns.

First, the paper industry -- as well as a number of other dischargers of conventional pollutants -- hold existing, or are currently negotiating, Best Professional Judgment (BPJ) permits which may be less stringent than the Best Conventional Technology (BCT) effluent limitations guidelines which will be issued in late 1983 or 1984. Under EPA's current regulations, these permits would be allowed to run out their five-year term before new permit limitations based upon the guidelines are required.

S. 431, by contrast, would require that dischargers of conventional pollutants immediately reopen existing permits upon publication of applicable BCT guidelines. This concern would be shared by any industry that is awaiting its BAT guidelines, and: (1) has a large number of BPJ permits issued after July 30, 1981; or (2) is currently negotiating BPJ permits for toxic pollutants not covered by Section 307(a).

Second, S. 431 would require that a permit be reopened each time a new water quality standard is issued that affects the permit. Under EPA's current regulations, this is not required for conventional, nonconventional, or toxic pollutants not regulated under Section 307(a). Section 122.62(b) of EPA's regulations would impose this requirement for health-based toxic standards developed under Section 307(a). The additional uncertainty created by extending this requirement to conventional pollutants (for which there are numerous applicable water quality standards), as well as nonconventional pollutants, outweighs any of the benefits or economies to be gained by a ten-year permit.

Third, the mandatory reopener and immediate applicability of new effluent limitations guidelines and water quality standards will require permittees to negotiate detailed compliance schedules each time a change is made. Under the current regulations, for conventional, nonconventional, and Section 301(b)(2) toxic pollutant control requirements, a permittee can utilize the remaining life of his existing permit to begin the process of complying with any such new requirements.

Fourth, the principal advantages -- indicated above -- of a longer permit term involve: (1) the savings in staff resources; and (2) a greater degree of certainty. However, the mandatory reopener, with no flexibility for EPA, included in S. 431 would significantly increase the manpower burden necessary to respond to new permit requirements, and certainly decrease the certainty associated with holding an approved, fixed-term, five-year permit.

In summary, S. 431 would confound, rather than simplify, the NPDES permit process. The mandatory permit reopener in S. 431 would make a virtual shambles of the carefully crafted reopener provisions in EPA's Consolidated Permit regulations. Such a reopener -- passed by the Senate Committee with little discussion, and no data to support its sweeping scope -- would involve EPA, the states, and permittees in endless series of permit negotiations with little or no attendant environmental benefit.

API/NFPA strongly oppose this provision of S. 431. We urge the Subcommittee, during its deliberations, to revisit the straightforward Administration proposal on this issue. Section 10 of the Administration's 1982 bill removes the burden of unnecessary permit processing requirements, while still maintaining existing reopener requirements essential to assure environmental protection.

D. EPA Review of State-Issued NPDES Permits

Since the regulations implementing the NPDES program were first issued in the early 1970's, thirty five states have moved to take responsibility for administering the program and issuing NPDES permits. A number of these states now have almost ten years of experience with the program. Nevertheless, EPA still reviews and approves each state-issued NPDES permit. This dual review of state

NPDES permits often involves EPA, state agencies, and permittees in time-consuming two or three way negotiations over best engineering judgment types of permit conditions.

In many cases, the state agency permit writer who is most familiar with local conditions is in the best position to render a technically correct decision on a particular matter. EPA's review serves only to delay the process, and expend valuable federal and state agency staff time.

API/NFPA believe that the time has come to step back and take a look at the proper role that EPA should play in the day-to-day administration and oversight of state-administered NPDES programs. The NPDES program has reached a sufficient level of maturity at the state level so that EPA review and approval of every state-issued NPDES permit are no longer necessary.

Rather, for those states that have effectively administered the NPDES program for more than three years, EPA's responsibility should become one of conducting a periodic program audit, rather than reviewing and approving either all, or selected, state-issued permits. If the periodic program audit turns up instances of ineffective state permit administration, EPA should have the right (after a hearing) to: (1) withdraw the state's permitting authority; or (2) return to reviewing and approving each state-issued permit for a probationary period.

This change will have two important advantages. First, the program audit would eliminate much of the manpower burden incumbent on EPA review and approval of state-issued NPDES permits. At the same time, EPA would still be assured an effective oversight role in reviewing state administration of the NPDES program. Second, permittees would no longer be caught in "best engineering judgment" disputes between state and federal permit writers on permit conditions not subject to uniform national standards.

We would like to work with the Subcommittee in developing an approach that would provide an option for periodic EPA audits of state NPDES programs, in lieu of EPA review of state-issued NPDES permits.

At a minimum, we urge the Subcommittee to consider modifications to Section 402(f) to require EPA to implement this section of the Act. Under the current law, EPA is required by Section 402(f) to promulgate regulations which identify categories of point sources for which the Agency will waive its review and approval of state-issued NPDES permits authorized under Section 402(d) of the Act. Even though Section 402(f) was passed as part of the 1972 Act, EPA has never developed regulations to implement the Section, nor identified categories of discharges for which the Agency will waive its review of state permits.

We suggest the following modification to Section 402(f) to reaffirm Congressional intent that EPA move to implement the requirements of this Section in an expeditious fashion:

> [The] Not later than 180 days after the enactment of the Clean Water Act amendments of 1983, the Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

In addition, in the case of states where EPA must still approve transfer of the NPDES program, we recommend the following amendment to Section 402(e) to accomplish a similar purpose:

> In accordance with guidelines promulgated pursuant to subsection (h)(2) of section 304 of this Act, the Administrator is authorized, and shall consider waiving as appropriate in the case of each State submitting a program under subsection (b) of this section, to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any category (including any class, type or size within such category) of point sources within the State submitting such program.

IV. ISSUES OF CONCERN TO THE FOREST INDUSTRY RAISED IN H.R. 3282

As introduced, H.R. 3282 raises three major issues of concern to API/NFPA. These include: (1) Section 6 which deals with water quality standards; (2) Section 9 which authorizes the formation of interstate conferences to protect water quality in estuaries; and (3) Section 10 which alters current Section 404 permit processing procedures. Our concerns with each of these issues are discussed below.

A. Water Quality Standards

1. Section 6 of H.R. 3282 Would Codify EPA's Existing Water Quality Standards Regulations

Section 6(a) of H.R. 3282 requires the states to maintain designated stream uses in effect on January 1, 1983 unless a state demonstrates that: (1) the existing use is not attainable because of natural background; (2) the existing use is not attainable because of irretrievable, man-induced conditions; or (3) application of controls beyond BAT/BCT in order to attain existing designated uses would result in substantial and widespread adverse economic and social impact. These requirements mirror those found in EPA's existing water quality standards regulations
(40 CFR §35.1550(c)(3)).

Section 6(a) also requires states to: (1) identify those waters where existing water quality exceeds the level necessary to support the existing designated use; and (2) upgrade the current water quality standards to preserve this level of water quality. This proposal goes even further than a requirement, currently embodied in Section 35.1550(c)(2) of EPA's water quality standards regulations, that states must upgrade standards to reflect achieved stream uses not included as designated uses.

Finally, Section 6(b) would amend the current law to codify EPA's current antidegradation policy found at 40 CFR §35.1550(e). The proposed amendment would also include EPA's Outstanding National Resource Waters program in statutory language.

As outlined in greater detail below, API/NFPA oppose codification of EPA's existing water quality standards regulations. We understand that EPA will shortly promulgate final revisions to the current water quality standards regulations. Consequently, we believe that any Congressional action, prior to a careful assessment of EPA's final rules, is premature.

2. Background on the Development of the Water Quality Standards Program and EPA's October 1982 Proposed Regulations

Section 6 of H.R. 3282 follows closely on the heels of approximately one year of public comment and controversy over the Environmental Protection Agency's October 29, 1982 proposal to revise the current regulations governing the way in which states set water quality standards (47 Fed. Reg. 49234). Before discussing the merits of either Section 6 of H.R. 3282, EPA's October 29 proposal, or EPA's upcoming modifications to the regulations, we believe a brief review of the background behind the water quality standards program would be useful to set the basis for our current deliberations.

At the outset of this review, we wish to point out that API/NFPA and EPA share a similar interest -- as expressed by the thrust of the proposed rule, EPA's subsequent actions, and our comments filed with the Agency. This common goal is to provide the states with the proper flexibility to evaluate the feasibility and desirability of attempting to attain designated uses which, in certain cases, may: (1) have been inappropriately derived; (2) not reflect local water quality conditions; and (3) be very costly to attain.

As you know, water quality standards consist of designated uses and numerical criteria to reflect those uses. Designated uses should be defined in a fashion consistent with naturally occurring local conditions. There are, for example, segments of streams flowing from swamps that have never had a high dissolved oxygen level. States must have the latitude to reflect such conditions -- as well as others, such as seasonal variations.

Similarly, numerical criteria must be derived to reflect the needs of the aquatic community that could normally be expected to exist in a specific stream in the absence of pollution. For instance, numerical criteria must be calculated in a manner that accounts for the differing needs of a trout in Michigan and a smallmouth bass in Georgia.

Because of the natural differences in local requirements, EPA's emphasis on "uses" is the appropriate approach to measuring water quality. For example, dissolved oxygen levels above those which meet all needs of the local aquatic population serve no environmental benefit.

Neither we nor EPA support the alteration of existing stream uses, or the downgrading of designated uses that are technically and economically feasible to attain. Specifically, designated uses should not be removed to facilitate industrial expansion. Nor should we cease our efforts, where feasible, to achieve higher uses.

We understand the controversy caused by some of the language in EPA's proposal. Valid concerns were raised during the comment period. We understand that the Agency has substantially modified the proposed regulations to resolve these concerns.

However, looking back over the development of the current program, there is clearly a need for some modifications at the present time. When Congress passed the Federal Water Pollution Control Act in 1972, the statute placed primary reliance for the clean-up of the nation's waters on nationally-developed, technology-based, effluent standards. At that time, the state-of-the-art for site-specific regulation through water quality standards was such that the then-existing 1965 Clean Water Act was not achieving results as quickly as desired by Congress, EPA, or the general public. In fact, by 1972, a number of states had not yet commenced the development of standards for intrastate waters.

Thus, the 1972 Act required the development of technology-based guidelines for industrial dischargers to be implemented through the National Pollutant Discharge Elimination System (NPDES) permit program. The Act continued the water quality standards program because Congress recognized that, in some instances, technology-based guidelines alone would not be sufficient to clean up a stream segment entirely. States, after determining the location of these badly polluted stream segments would (under the framework of the 1972 Act) impose additional requirements in order to assure that these streams would move toward the 1983 goal of fishable and swimmable waters where attainable.

The legislative history of the 1972 Act contains many statements that water quality standards would remain an integral part of the clean-up program -- not to be used across the board instead, or after the application, of technology-based requirements -- but in conjunction with them as needed on a case-by-case basis. For example, the House floor manager for the Conference Report accompanying P.L. 92-500 indicated that, "it [Section 303] is intended to be a supplement to the 1977 and 1983 requirements." (Leg. History; 1972 FWPCA; Vol. 1; page 246)

Similarly, the Senate floor manager's statement accompanying the Conference Report noted that:

> The Administrator should assign secondary priority to this [Section 303] provision to the extent that limited manpower and funding may require a choice between a water quality standards process and early and effective implementation of the effluent limitation permit program. (Leg. History; 1972 FWPCA; Vol. 1; page 171)

In implementing the 1972 Act, EPA followed this directive, placing the lion's share of Agency resources against the formidable problems of: (1) implementing the NPDES permit program; (2) developing technology-based BPT and BAT effluent guidelines; and (3) administering the municipal construction grants program. Coupled with the limited stream data available in 1972, and the states' lack of expertise in standards setting, EPA's preoccupation with more pressing concerns resulted in the water quality standards program taking an understandable second priority to the other programs mentioned above.

This problem was compounded by the limited guidance that EPA did provide the states regarding the derivation of water quality criteria and the designation of stream uses to develop water quality standards. Often, this guidance was inflexible with respect to considering site-specific water quality conditions.

For example, in July 1978, EPA announced that the Agency would follow a policy of "presumptive applicability" for its laboratory-derived, Red Book water quality criteria. Presumptive applicability meant that a state had to adopt a criterion for a particular water quality parameter at least as stringent as the recommendation in the Red Book unless the state was able to justify a less stringent criterion based on natural background conditions, more recent scientific evidence, or local site-specific information. The Red Book criteria were imposed upon the states even though they were never subjected to public or scientific peer review.

As a consequence of presumptive applicability of the Red Book Criteria, some states were forced into designating uses that do not, at the present time, reflect the capabilities of local waterbodies. In many cases, states were compelled to develop standards for stream segments before an adequate data base was developed to justify the action. While EPA officially withdrew the policy of presumptive applicability in November 1980, a number of EPA Regions still seem to apply the policy during the review of state water quality standards.

Thus, API/NFPA believe that the lack of water quality data and state expertise, combined with inflexible EPA guidance, resulted in the development of standards -- during the early and mid-1970's -- which often do not reflect site-specific stream conditions. To save time and avoid conflicts with EPA, states often extracted water quality criteria directly from EPA's Red Book criteria.

For example, at a December 14, 1982 EPA hearing on water quality standards, Harold Sawyer, the Administrator of the Water Quality Division of the Oregon Department of Environmental Quality stated that:

> I reject outright the assumption that standards that are adopted today were in all areas, every stream, every reach, adequate, based on sound data, because they were not. And if we then assume that because they were adopted you are somehow prohibited from factoring in the more specific data and adjusting those standards up or down to reflect the better data, because it is a downgrading or because it is something else, then we really have a problem with the program and the credibility of it.
>
> We find ourselves frequently trying to set priorities on that basis where there are procedural requirements in current regulation that tend to force you into some kind of a process now that doesn't gain anything but burns up resource. A review of standards on a statewide basis every three years is certainly not a very productive use of a very limited resource.

Thus, where it has occurred, this type of standards development has resulted in standards that exist on paper but are difficult to implement on individual stream segments. In some cases, these standards have been used as ambitious but ambiguous goals, rather than enforceable requirements. Some of these standards have been improperly derived. In a few cases, they were derived properly, but will be extremely difficult and far too costly to implement.

As we move beyond the broad-scale application of technology-based standards, to superimpose water quality-based permit requirements on individual stream segments, attaining these standards will be very questionable. EPA has made the same point at a House Water Resources Subcommittee hearing on water quality standards on February 23, 1983. Former EPA Assistant Administrator, Frederick A. Eidsness, Jr., stated that:

> Immediately after the passage of the 1972 Clean Water Act amendments, most States adopted fishable and swimmable use classifications for their rivers, lakes and streams. This was sometimes done without adequate analysis concerning what constituted a fishable use given the chemical, physical and biological characteristics of a particular water body. Experience has shown that, in some cases, a particular use, such as a trout fishery, cannot be attained because of hydrologic conditions or physical modifications of the stream. In some instances, the occurrence of pollution prevents the use from being attained.

Appendix B of API/NFPA's testimony provides case studies where improperly derived standards that are not reflective of local stream conditions were imposed through EPA's inflexible policies on water quality criteria. They also represent cases where increased technology, forced by incorrect standards, at increased cost, does nothing to protect the environment. The attached case studies represent examples where our industry has been directly affected by the problems EPA describes above.

Notwithstanding these start-up problems, the water quality standards program has and continues to evolve as EPA and the states gain more data and expertise. All 57 states and jurisdictions have approved water quality standards for commonly regulated pollutants such as Biochemical Oxygen Demand (BOD), ammonia, and phosphorus. Substantial additional data have been collected, providing the states with a longer and more detailed baseline for the development of site-specific criteria where needed.

For example, through the Section 208 planning process, the states have compiled considerable information on water quality conditions and problems on specific stream segments. The states' Section 305(b) reports have likewise resulted in the development of a substantial information base for identifying priority stream segments and developing site-specific criteria and standards. Finally, the states have collected a great deal of water quality data from: (1) industrial discharge monitoring reports (DMRs); and (2) federal, state, and industrial water quality studies for NPDES permit renewals, and for locating new sources. In short, a number of data collection programs which did not exist in 1972 now provide a part of the base for the development of more precisely derived, site-specific criteria, to form the basis for credible water quality standards.

Thus, API/NFPA believe that the program has matured to the point that states are now in a much better position to review and revise their standards in a technically sound fashion. The water quality data base that will drive the state review has had the benefit of ten years of further development. In the context of what the Act originally envisioned -- site-specific standards on priority segments to direct regulatory decisions in conjunction with technology-based controls as contemplated by Congress in 1972 -- the state agencies now, by and large, have the necessary experience and expertise.

We concur with the Association of State and Interstate Water Pollution Control Administrators' (ASIWPCA) testimony at a January 20, 1983 EPA hearing on water quality standards. ASIWPCA stated that:

> The states have now had more than ten years experience in water quality management using technology-based effluent requirements and water quality standards. During this time, the states accumulated substantial experience and data with which to develop defensible, credible water quality standards.

In summary, the water quality standards program must be addressed today in the context of a program that: (1) has not been subject to legislative oversight or scrutiny since 1972; (2) started slowly because Agency, Congressional, public, and industry resources were placed elsewhere; (3) progressed fitfully at times due to insufficient data, lack of agency expertise, and inflexible requirements sometimes forced upon the states; but (4) has, nonetheless, shown progress and evolved to the point where the states are ready, with additional guidance, to implement the next stage of the nation's water pollution control program.

The nature of this additional guidance is the subject of EPA's October 29, 1982 proposed regulations, EPA's more recent regulatory proposal, and Section 6 of H.R. 3282. We welcome these initiatives as needed opportunities to discuss the role of water quality standards (in site-specific regulation) after the implementation -- now near to completion -- of uniform, nationwide, technology-based controls.

As mentioned earlier, in revising the existing regulations which set forth the requirements for the development of state water quality standards, EPA initiated a review of regulations which have not been materially changed since November 1975. In revising and updating these regulations to reflect the maturation of the water quality data base, and state decision-making capabilities, it was not the Agency's intent to embark on a radical, new direction for the water quality standards program.

Indeed, in describing the October 29 proposal, EPA noted in the preamble to the regulations that:

> The proposed changes reflect experiences gained in the program by both EPA and the States. The changes increase the flexibility of the States to:
>
> - review and revise, as appropriate, water quality standards on priority water bodies or segments as necessary rather than reviewing all standards statewide every three years;
> - set site-specific criteria rather than adopt Section 304(a) criteria guidance;
> - remove or modify impaired uses based on analyses of the attainability of the uses and on benefit-cost assessments, if appropriate, rather than maintain use designations which cannot be met.
>
> These changes will enable States to use water quality standards as a pragmatic tool in improving water quality where necessary to protect water uses. (47 Fed. Reg. 49234)

Thus, EPA's proposal represents one attempt to reflect the evolution of the program by providing additional flexibility to develop site-specific standards which reflect local water quality conditions on priority water bodies. However, neither the specific language, nor all of the concepts in EPA's proposal are sacrosanct. Rather, they are portions of an Agency proposal which has changed as the rulemaking proceeds. EPA's proposed regulations were subjected to considerable public and Congressional scrutiny as the Agency moved forward.

We understand that EPA will shortly issue final regulations which will: (1) respond to the more than 1400 public comments on the October 1982 proposal; and (2) resolve many of the public concerns raised by certain elements of EPA's October 1982 proposal. API/NFPA urge that _any_ Congressional action in the water quality standards area be deferred until after the public has an opportunity to carefully analyze EPA's soon-to-be-issued final regulations. Moreover, the specific provisions embodied in Section 6 of H.R. 3282 would be particularly troublesome notwithstanding the awkward timing of this legislative proposal.

3. _API/NFPA Have Serious Reservations Over Section 6 of H.R. 3282_

a. _H.R. 3282 Would Reduce Administrative Flexibility and Further Delay the Implementation of Workable Water Quality Standards_

One major purpose behind EPA's October 29, 1982 proposal is to provide the states with sufficient flexibility to develop water quality standards that are truly reflective of the needs and conditions of specific stream segments. As we note above, EPA's past lack of flexibility in this area has resulted in the state development of water quality standards that do not accurately represent site-specific stream conditions.

We are most concerned that statutory codification of EPA's present water quality standards regulations will: (1) delay the development of revised water quality standards by states as EPA struggles with a third revision of the program regulations -- this time to implement Section 6 of H.R. 3282; (2) set the basis for successive rounds of litigation which may move the water quality standards program in a direction not presently anticipated by the Subcommittee; and (3) discourage states from undertaking any revisions to current improperly set water quality standards because of a lack of federal consensus on an appropriate national policy in this area.

b. H.R. 3282 Would Eliminate the Administrative Flexibility for the States' Development of Site-Specific Water Quality Criteria

API/NFPA concur with EPA's decision to encourage states to develop site-specific criteria to reflect local conditions. EPA has properly concluded that the existing Red Book laboratory-derived criteria, developed under Section 304(a), do not always accurately reflect the adverse impact of a pollutant because of the effects of local water quality characteristics or the varying sensitivities of local aquatic communities. In conducting this review, EPA has also recognized that adaptive processes may enable a viable, balanced aquatic community to exist in water with high natural background levels of certain pollutants.

EPA is likewise correct in concluding that the development of site-specific criteria is an important method of taking local conditions -- including variations in stream flows over time -- into account. This flexibility will ensure that the criteria developed by the states will be adequate to protect properly designated uses, but that they will not be more stringent than needed. EPA requires that any changes to existing criteria must be justified by acceptable scientific procedures.

API/NFPA believe that the advances, described earlier, in the states' capabilities and the water quality data base make EPA's October 1982 proposal a timely attempt to move the states toward a fuller utilization of the data that have been collected.

One indication of the capability of states to develop, and properly utilize, site-specific criteria is provided by the testimony of the Georgia Department of Natural Resources (DNR) at the December 7, 1982 EPA hearing on water quality standards. Leonard Ledbetter, Director of the Environmental Protection Division of the Georgia DNR indicated that the state:

> Has no intention of proposing or allowing changes in the Georgia Water Quality Standards which will in any way detract from the past progress in water pollution abatement in Georgia or in our plans for continued progress in the future. However, the proposed regulations will provide flexibility to Georgia and the other States to improve upon this progress. The flexibility to set site-specific criteria will enable the State to perform stream studies to establish scientifically defensible criteria in a small South Georgia stream with a dissolved oxygen level of 3.4-4.0 mg/l, the proposed regulations will allow this criteria to be established for this stream, but only after the appropriate studies, public hearings and Environmental Protection Agency approval. This, in turn, may permit a city to use a conventional water pollution control facility to achieve the fishing classification rather than invest in expensive advanced treatment facilities to achieve the same result.

We are concerned that the thrust of Section 6 will discourage the states from moving toward the development of site-specific criteria, and instead encourage the indiscriminate application of the nationwide, Red Book criteria. H.R. 3282 does not reflect the site-specific nature of the uses and capabilities of individual stream segments. Rather, the proposed amendment retains the program's unfounded past emphasis on the implementation of uniform standards throughout the country. By making it more difficult for the states to modify existing standards, H.R. 3282 would effectively destroy much of the momentum and effort expended toward assisting the states to develop site-specific water quality criteria.

c. H.R. 3282 Would Substartially Shift the Emphasis of the Current Program from the Maintenance and Achievement of Designated Stream Uses to the Preservation of All Measures of Ambient Water Quality

Section 35.1550(c)(2) of EPA's current water quality standards regulations requires that:

> The State shall maintain those water uses which are currently being attained. Where existing water quality standards specify designated water uses less than those which are presently being achieved, the State shall upgrade its standards to reflect the uses actually being attained. (Emphasis added.)

API/NFPA support this requirement, and urged its inclusion in EPA's final revisions to the October 29, 1982 proposal. We understand that EPA has decided to retain this provision in its soon-to-be promulgated final rule. Such a requirement will be necessary to capture, in water quality standards, those stream uses which will be realized as industry installs BAT/BCT technology, and municipalities achieve secondary treatment.

Section 6 of H.R. 3282, however, imposes a substantially different requirement. Section 6 would amend the current Act to assure that:

> Each State shall identify those waters within its boundaries the quality of which exceeds the level necessary to support the designated uses contained in any existing water quality standard applicable to such waters. The State shall revise any such water quality standard with respect to waters so identified as necessary to preserve such quality. (Emphasis added.)

This proposal would eliminate EPA's emphasis on the protection of designated uses. It would, instead, require the states to preserve **all** numerical measures of ambient water quality, irrespective whether the increment of water quality in question contributes in any way to the maintenance of either existing or potential stream uses. In a stream where all organisms can flourish with a dissolved oxygen (DO) limit of 5.0, an 8.0 DO is no more useful than a 7.0 DO. Such an approach would mandate the preservation of water quality for its own sake without regard to the needs of the local aquatic community.

d. H.R. 3282 Would Confound Implementation of EPA's Antidegradation Policy

Section 6 of H.R. 3282 contains the first specific statutory Clean Water Act language for an antidegradation policy. The proposed statutory language is virtually identical to the current regulatory policy for antidegradation found at 40 CFR §35.1550(e)(2) of EPA's present water quality standards regulations. The Agency maintains that the statutory basis for the current antidegradation policy is found in Section 101(a)(1) and Section 303(c)(2) of the Act. Since 1975, EPA has sustained this policy, as authorized by the statute, in the face of at least one unsuccessful legal challenge. The states have included the policy in their water quality standards.

Notwithstanding this record of progress in implementing the current regulatory antidegradation policy, statutory codification of

EPA's existing regulations raises a number of concerns with respect to the likely flood of litigation that will follow EPA's attempt to interpret and implement this new statutory requirement. For example, under EPA's current regulations, the designation of Outstanding National Resource Waters is a discretionary responsibility that the states may choose to implement. Under the requirements of Section 6, however, it is not clear that this represents a discretionary responsibility. In addition, Section 6 is vague with respect to most other aspects of the implementation of this new program.

In our view, the need for statutory codification of EPA's antidegradation policy has not been demonstrated. API/NFPA urge the Subcommittee to delete this portion of Section 6.

B. Estuarine Protection

Section 9 of H.R. 3282 amends Title III of the current Act to establish a mechanism to convene state and interstate management conferences designed to provide additional water quality protection for estuarine areas. API/NFPA do not object to the basic thrust behind this proposal. However, we have two concerns with the specific language included in Section 9.

First, we believe that the estuarine management conferences envisioned in the proposal should be convened at the call of one or more of the states responsible for the protection of water quality in the estuary in question. The formation of a conference should then be subject to the approval of the Administrator. In light of EPA's review and approval of state NPDES permits, water quality standards, and local municipal waste treatment programs, we see no need for EPA to have the authority to unilaterally trigger an interstate conference mechanism. Giving states some responsibility in convening the conference will also assure that estuaries with significant problems are chosen.

Second, API/NFPA believe that Section 9 should be clarified to specify that the recommendations provided by the estuarine management conferences shall not contravene state NPDES permits, water quality standards, or nonpoint source control programs. The state or states in which the estuary is located should have the primary responsibility for implementing the recommendations of the conference in concert with existing state water quality programs. Disputes over interstate estuaries should be resolved through existing procedures already provided in Section 401 and Section 402 of the Act. Finally, the findings and recommendations of any management conference should be coordinated with the existing planning programs authorized under Sections 201, 208, 209 and 303 of the current Act.

C. The Section 404 Dredged or Fill Permit Program

Section 10 of H.R. 3282 would amend Section 404 of the current Act in two significant respects. First, Section 404(b) would be amended to include a new statutory criterion for evaluation of a Section 404 permit application. This criterion is patterned after a standard of review currently embodied in 40 CFR §§230.1(c), 230.10(a), and 230.10(c) of EPA's December 24, 1980 Section 404(b)(1) environmental guidelines.

Second, Section 10 would amend Section 404(q) of the current Act to write into law, permit processing procedures similar to those required by March 1980 Memoranda of Agreement among the federal agencies involved in the review of Section 404 permits (i.e., the Army Corps of Engineers, EPA, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service). This amendment is apparently designed to reflect Congressional disfavor with July 1982 revisions to the March 1980 MOA's. The relevant agencies processed these revisions after receiving public comments on opportunities to streamline the permit program.

API/NFPA oppose such changes at this time. As the Subcommittee knows, API/NFPA have been deeply involved, since 1975, in the implementation of the Section 404 program. We have testified on this program in 1975, 1976, 1977, and 1979.

As a result of this Subcommittee's efforts in 1977, many normal forestry, farming and ranching activities are currently exempt from Section 404 permit requirements. Therefore, our industry faces neither the degree of exposure to the program that we did in the past, nor the exposure presently faced by some other industry groups.

We support much of the current effort to make the Section 404 program more efficient through the regulatory reform initiatives undertaken by this Administration. We believe, however, that legislative change to the Section 404 program is premature at this time. The regulatory reform process should run its course. The program needs a period of relative administrative stability before a comprehensive Congressional review is begun.

Legislative action on Section 404 may ultimately be necessary. However, we believe that efforts to address the program in a piecemeal fashion will only complicate an already controversial federal regulatory effort. Unfortunately, the two amendments contemplated in Section 10 of H.R. 3282 would have just this effect.

For example, Section 10(a) would write into law one of the standards of review that field level permit writers must apply against permit applications. Such an amendment would presumably elevate this particular standard above all the other criteria and findings that make up a Section 404 permit review. Moreover, by moving this standard of review from Corps enforcement policy to a statutory requirement, Congress would eliminate all flexibility for a field level permit writer to balance conflicting concerns in a permit decision. Finally, establishing a new statutory standard of review will undoubtedly result in a substantial increase in litigation over Corps Section 404 permit decisions.

Section 10(b) would amend Section 404(q) to freeze indefinitely interagency procedures for permit review that are still evolving toward increased environmental effectiveness and administrative efficiency. Congress originally passed Section 404(q) in 1977 to indicate Congressional concern over the length of time required to process Section 404 permits. Section 404(q) required the federal agencies involved in reviewing Section 404 permit applications to develop Memoranda of Agreement with the Corps of Engineers to expedite the processing of Section 404 permits. To the extent feasible, permit decisions were to be made within 90 days of permit application.

Unfortunately, these Memoranda of Agreement were not first issued until March 1980. Even then, their impact in reducing Section 404 permit processing time was questionable. In July 1982, the Subcommittee heard considerable testimony on the Section 404 program. Reviewing the permit processing statistics submitted by environmental group witnesses during these hearings, we note that there has been no significant reduction in average permit processing time from fiscal year 1977 through fiscal year 1981.[1]

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[1] See, for example, the July 28, 1982 statement before the Subcommittee of Hope M. Babcock, Deputy Counsel of the National Audubon Society. Table 4 of the statement provides average permit processing times for FY 1977-FY 1980. These data provide three interesting pieces of information: (1) average processing time has not changed significantly since before passage of the 1977 Act; (2) even after deleting permits which require EIS's, the average time is still substantially in excess of the 90 days established as a goal by Section 404(q). Permits which require EIS's are, by far, the most time consuming, and would raise the average processing time further; and (3) while the March 1980 MOA's had no appreciable effect on reducing the average permit processing time, the number of relatively time-consuming, "controversial" permits increased significantly after issuance of the MOA's.

The July 1982 revisions to the MOA's were one attempt to fulfill the mandate of Section 404(q) to reduce permit processing time. As the agencies gain more experience with the program, it is ineluctable that permit processing procedures will, and should, continue to change. We believe that the proposal in H.R. 3282, to freeze into law, one set of procedures will significantly reduce the administrative efficiency of the Section 404 program, as well as the ability of the agencies involved in its implementation to respond to changing circumstances.

In sum, we believe that both of the proposals in Section 10 to amend the Section 404 permit program are ill-founded. Both proposals delve into areas of administrative procedure where Congressional mandates are least efficient, and agency discretion is most necessary. We urge the Subcommittee to defer action on this issue pending a comprehensive review of the effectiveness of the Section 404 program -- perhaps conducted by the full Committee's Investigation and Oversight Subcommittee.

V. H.R. 4037 AND THE CONTROL OF NONPOINT SOURCES OF POLLUTION

One issue that has already received considerable discussion during the current Congressional review of the Act involves the control of nonpoint sources of pollution. The Senate Committee reported a measure designed to provide federal financial support to states in order to assist the implementation of nonpoint source control programs. H.R. 4037, introduced by Congressman James Oberstar, takes a similar approach. We anticipate that other alternatives will be discussed as the Subcommittee's deliberations proceed.

Our commitment to reasonable nonpoint source control programs has been reflected in our support for the Section 208 planning process under the 1977 Clean Water Act. We are interested in controlling nonpoint source pollution in order to: (1) foster good forest management; and (2) avoid, at our manufacturing facilities, unnecessary treatment -- beyond Best Conventional Technology -- for Biochemical Oxygen Demand and suspended solids on streams where uncontrolled nonpoint sources contribute to these water quality problems.

Much of the interest in the water quality impacts of forestry activities has been focused, in recent years, through the Clean Water Act's Section 208 program. Through Section 208, EPA fostered active programs in a number of states to: (1) assess the impacts of forestry activities on water quality; and (2) devise management practices and control programs, where necessary, to achieve water quality goals.

The results of state Section 208 planning efforts to date have shown considerable variation in programs from state to state. This variability makes it very difficult to draw any generalizations about the 176 areawide and 49 state Section 208 planning programs. However, based upon the data base developed as a result of the Section 208 planning process, we believe that a general perspective on the water quality impacts associated with silviculture activities has been gained by EPA, the states, and the forest industry.

A. Impact of Forestry Activities on Water Quality

In general, water from forest lands is of high quality and supports the most sensitive water uses. For example, almost all western, and most eastern, cities have municipal water supplies in forested areas. In addition, trout and salmon fisheries depend upon high quality water from forested watersheds.

Based on existing water quality data, which in many cases are admittedly still incomplete, silvicultural activities have not been considered a major, overall, nationwide water quality management issue. However, forest management practices which potentially impact water quality on a localized basis are recognized. These difficulties are usually caused by improper application of forestry practices such as logging road construction, skid trail location, and certain types of site preparation for replanting trees. However, the type and severity of the problems, as well as the nature of the particular silvicultural activity causing the difficulty, vary considerably from state to state due to topography and other local conditions. There is considerable variability even within states in some areas.

In most cases, sediment is considered the primary source of pollution from forestry activities. However, the 1978 study report of the Society of American Foresters' Clean Water Act Task Group indicates that sediment from forest lands is estimated to be less than 4% of the total man-caused sediment in the nation's water. This is particularly significant considering that there are 718 million acres of forested land in the United States, constituting approximately one-third of the total land area.

A reflection of the magnitude of the problem caused by silviculture is the fact that only ten of the 225 Section 208 planning agencies, in their initial problem assessment, identified forestry activities as a priority problem to be addressed by the Section 208 program. In other cases, Section 208 planning agencies have identified either problems which are geographically localized, or problems caused by specific types of activities. While not priority problems, these localized difficulties were addressed during the Section 208 planning process.

B. Forest Industry Involvement in the Development of Nonpoint Source Control Programs Under Section 208 of the Clean Water Act

In November 1975, EPA issued the first in a series of regulations and guidance materials that required the states to utilize the Clean Water Act's Section 208 planning process as the primary mechanism for addressing nonpoint source pollution problems from silviculture, as well as from a number of other sources (40 Fed. Reg. 55335). Since the development of these EPA policies, the forest industry has assisted in the implementation of the Section 208 process nationally, regionally, and on a state-by-state basis. Nationally, API/NFPA have maintained an active program dealing with Section 208 planning since 1975.

From an industry perspective we feel that our involvement with EPA and other agencies at the national level has been positive in terms of working toward reasonable and effective Section 208 programs. One index of the nature of our involvement at the national level is that API/NFPA supported reauthorization and continued appropriations for the Section 208 program, through the completion of Section 208 plan development in 1980.

In addition, API/NFPA have developed a cooperative research program on forest practices and water quality with the National Council of the Paper Industry for Air and Stream Improvement (NCASI). At your later hearing on nonpoint sources, we would like to share some of the most recent results of our resaerch contained in NCASI's January 1983 report, "Summary of Silviculture Nonpoint Source Control Programs - 1982." This report provides the best information available from any source on the current status of Section 208 silviculture programs in the various states.

At the regional level, a number of forestry associations have organized forestry involvement in the Section 208 process, and provided a forum for the exchange of information on the progress of Section 208 planning in each state. However, due to the nature of the Section 208 program, most of the action has taken place at the state level. In almost every state with a substantial forest land base, the forest industry has contributed to the Section 208 planning process by providing its expertise, cooperating in assessment studies, and even funding studies of management options.

There are almost as many different varieties of Section 208 programs for silviculture nonpoint source control as there are states that worked with the silviculture category. The variation in these programs strongly reflects: (1) the nature, type, and extent of the problem identified in each state; (2) the nature of the ownership of the forest land base; (3) the differences in analyses as to the most effective way to reach those operators or landowners causing the problems; and (4) the nature and effectiveness of existing institutional arrangements for implementation in each state. With at least this many variables to consider, the differences in the types of state programs adopted should come as no surprise.

Our involvement with the Section 208 program, NCASI's research in this area, and our review of a number of legislative proposals introduced to date, suggest at least nine discreet issues which must be considered in framing any new federal initiative to deal with nonpoint source pollution. Below, we review each of these issues in an attempt to assist the Subcommittee in drafting a broadly acceptable, and workable nonpoint source pollution control amendment.

C. Questions Which Must be Addressed in Framing New Federal Initiatives on Nonpoint Sources

1. Should Additional Federal and State Efforts to Control Nonpoint Source Pollution Build on the Section 208 Planning Process?

It is our position that the completed Section 208 nonpoint source control plans should, to the extent possible, serve as a springboard for further development and implementation of nonpoint source management practices. In most cases, state plans developed through the Section 208 process represent the most comprehensive available assessment of: (1) nonpoint source problems in each state; (2) needed controls to deal with these problems; and (3) viable institutional arrangements for implementing these controls.

We would be reticent to endorse a new round of planning to guide nonpoint source control implementation activities. Indeed, NCASI's survey of state silvicultural nonpoint source control programs indicates that forty states are already moving forward to implement the programs they developed through the Section 208 process. We understand that similar results in the agriculture area have been obtained through a survey (conducted by the National Association of Conservation Districts) of state agricultural nonpoint source control programs. We would be reluctant to see this progress interrupted by the interjection of a completely new federal nonpoint source pollution control initiative.

While the Section 208 data base may need to be supplemented in certain areas, it is (as indicated) the best information source available at the present time. It should, thus, serve as the foundation for any efforts initiated by the Subcommittee through new legislation this year. API/NFPA recommend that any legislation reported by the Subcommittee to the House specify that state and federal nonpoint source control efforts should build upon the Section 208 plans developed by the states, and approved by EPA.

2. Should the Federal Government Step-In to Implement Nonpoint Source Controls Where States Do Not Act in a Timely Fashion?

One element common to a number of proposals advanced to date is the proposition that the federal government would directly implement nonpoint source controls in a state which does not develop an appropriate program under whatever conditions are specified in these legislative options. API/NFPA strenuously object to this sort of federal step-in as a remedy for state inaction.

One important finding of the Section 208 effort is that the nature and variability of nonpoint source problems and needed control measures dictate that control programs must be developed and implemented at the state and local level. In our view, there are very real institutional and resource limitations that would be faced by EPA or any other federal agency attempting to implement, monitor, and enforce nonpoint source controls at the state level. These limitations make direct federal implementation of nonpoint source control programs infeasible, even in cases where states are, for some reason, unwilling or unable to act.

Quite apart from the issue of the federal government's questionable capability to implement a program in place of a state, we wonder whether speculation over the possible inaction of a state or states is a real concern. As indicated, forty states are moving forward in the silviculture area in the absence of any federal assistance whatsoever. The recent NACD survey demonstrates a similar degree of state and local commitment in the agricultural area.

The principal impediment to more aggressive efforts to control nonpoint sources over the past three years has not been a lack of state or local interest. Rather, efforts have slowed to some extent because of a perceptible lack of federal support, encouragement, and/or financial assistance to augment state and local efforts.

In this light, we believe it is, at best, premature to threaten heavy-handed federal intervention or sanctions in states which for some reason fail to move forward as fast as many would like. First, the threat of direct federal intervention to implement nonpoint source controls rings hollow in light of the lack of federal capability to perform this function. Second, it is not at all clear that this is the only, or even the best, means of inducing reluctant states -- if there are any -- to move forward in an expeditious fashion.

API/NFPA suggest an alternative role for EPA in this process. We believe that the Administrator should review the status of nonpoint source problems in those states which fail to submit an implementation plan under whatever proposal the Subcommittee finally adopts. The Administrator should report to Congress within eighteen months assessing: (1) the need for additional nonpoint source controls in these states; and (2) appropriate federal remedies as a result of the states' failure to act.

3. Is Federal Financial Support Necessary to Foster the Implementation of Nonpoint Source Controls?

Our industry survey of the current status of state silviculture nonpoint source control programs indicates that a major impediment to more rapid implementation of nonpoint source controls is the lack of available financial and staff resources at the state level. Indeed, ten of the forty states which are actively implementing a silviculture nonpoint source control program responded that lack of federal financial support, as Section 208 grants are phased-out, will slow down their efforts.

Major federal financial assistance to the states for dealing with nonpoint source problems ended in 1980 with the completion of the Section 208 planning process. Since that time, there have been limited federal financial measures provided to the states to help implement specific Section 208 plan elements. In our view, given the current limitations on resources at the state and local level, some degree of federal financial assistance will probably be necessary to: (1) help states refine implementation plans, where necessary; (2) implement the education, training, technology-transfer, and other programs designed through the Section 208 planning effort to get best management practices implemented on the ground; and (3) in some limited cases, cost-share the actual implementation of best management practices.

In the silvicultural area, we believe the principal need for financial assistance is to aid the states in implementing education, training, and technology-transfer programs. We would not anticipate a great deal of cost-sharing for actual implementation of best management practices, since silvicultural best management practices do not generally involve extensive capital costs. However, there may be a substantial funding need of this nature in the urban and agricultural areas, where capital expenditures are often involved in nonpoint source control measures.

We appreciate the current lack of hard information concerning the total financial resource commitment necessary to effectively address nonpoint source problems nationwide in order to achieve the goals of the Act. API/NFPA do not believe that we should embark on a massive grants program analogous to the municipal construction grants effort. At the same time, we believe that a larger federal commitment, at the present time, would be helpful to serve as "seed money," to assist states in commencing or enhancing implementation efforts.

We would not, however, object to a more limited interim federal involvement (perhaps on a case study basis) designed to generate a more accurate assessment of the total, national nonpoint source control resource needs. Any such interim measure should be fashioned so that: (1) results are obtained on a timely basis; and (2) a comprehensive report to Congress concerning the appropriate federal role is provided no later than three years from the date of passage of the Clean Water Act amendments currently before the Subcommittee.

4. Beyond Financial Support, What is the Appropriate Federal Role in Addressing Nonpoint Source Pollution?

API/NFPA believe that the implementation of nonpoint source control programs should remain a state and local responsibility. However, there is an appropriate role (in addition to providing financial assistance) for the federal government in this process.

The Environmental Protection Agency should continue to review and approve state nonpoint source control programs in order to: (1) assure reasonable state progress toward meeting water quality goals; (2) guard against unwise expenditure of federal financial resources in supporting state programs that are poorly conceived and/or operated; and (3) resolve any interstate disputes concerning nonpoint source problems. With respect to the latter responsibility, we support special studies designed to deal with unique interstate nonpoint source problems such as the pollution of the Chesapeake Bay. In our view, EPA should also serve as a clearinghouse for the transfer of information on successful implementation programs at the state level.

Finally, EPA should assess the progress being made, and keep Congress abreast of needed changes to the federal strategy for dealing with nonpoint sources. This responsibility should include, as suggested above, a requirement for EPA to report to Congress where states do not act to address nonpoint source problems.

In addition to EPA, we believe that the U.S. Department of Agriculture has an important role to play in addressing nonpoint source problems. USDA should provide technical assistance, where appropriate, to assist state implementation of nonpoint source control programs. USDA's expert agencies and delivery systems for dealing with the agricultural community will prove essential in assisting the states to move forward in addressing water quality problems caused by agricultural activities.

Finally, we believe that all federal agencies have a responsibility to work closely with state nonpoint source control implementation agencies to make sure that federal programs are consistent with state efforts in this area. The federal government should not unwittingly cancel out the effects of state nonpoint source control efforts as the result of poorly coordinated federal projects or programs.

5. Should States Be Bound to a Uniform, Nationwide Date By Which Nonpoint Source Controls Must Be in Place?

Another important finding of the Section 208 planning effort is that the variability of nonpoint source problems from state to state -- and even within states in certain areas -- requires a policy that provides the states\with considerable flexibility in controlling nonpoint source pollution. In our view, the most important components of this policy include the flexibility to develop: (1) different types of control programs, both regulatory and non-regulatory; (2) schedules for achieving implementation milestones that reflect the necessary differences in these control programs; and (3) economically and technically feasible best management practices that will be applied in a site-specific fashion.

In light of this diversity in types of control programs, we have considerable difficulty with the requirement, advanced in a number of proposals, that all states must implement nonpoint source controls within forty-eight months (or by some other arbitrarily chosen, uniform date). The local variability of nonpoint source problems makes it imperative that states be afforded varying time schedules to implement necessary controls.

We believe that a uniform deadline for compliance could well have a chilling effect on the states' willingness and ability to consider a broad range of alternative implementation programs. Such a deadline runs a very real risk that the states will identify only those problems for which they are certain they can achieve compliance within the forty-eight month deadline.

API/NFPA prefer a less extreme option than attempting to impose nationwide nonpoint source controls within forty-eight months -- an approach which appears to represent "point source" thinking. We suggest that each state program submitted to EPA for approval include a schedule of accomplishments -- agreed upon by both the state and the Administrator -- for the implementation of the nonpoint source controls specified in the state plan. By monitoring the state's progress in achieving these milestones, we believe that EPA will have adequate opportunity to assure that the state is moving forward on a timely basis, in a fashion that is reflective of each state's particular nonpoint source problems. This approach will result in a more honest appraisal of the nonpoint source problems in each state, as well as a more sincere effort to deal with these difficulties.

6. Should the Nation's Nonpoint Source Pollution Control Strategy Continue to be Premised on the Implementation of Best Management Practices?

Since November 1975, EPA has emphasized the control of nonpoint source pollution problems through the implementation of best management practices (BMP's) (40 Fed. Reg. 55338). EPA's approach to developing best management practices to protect water quality has fostered the concepts that: (1) states, as opposed to federal agencies, will determine whether a practice is indeed a BMP; (2) alternative practices will be examined; and (3) such practices must be technically and economically practicable before they will be adopted.

EPA's approach has also supported the notion that the application of best management practices must be tailored to site-specific conditions. BMP's may, therefore, vary from site to site depending on the nature of particular silvicultural activities and related potential water quality problems. Finally, EPA's approach to BMP development encouraged the utilization of existing forestry expertise in the development of best management practices. This aspect of the BMP development process was essential in securing technically feasible BMP's.

Our experience in working with Section 208 agencies at the state and local level to develop BMP's has been positive. The states that addressed silviculture nonpoint source pollution developed their BMP's in conjunction with the forestry interests in each state. These BMP's meet the regulatory criteria for BMP development set forth by EPA in 1975. It is our understanding that best management practices were developed in a similar fashion in the agricultural area. Because EPA, state, and local Section 208 planning agencies framed BMP's that are both workable, as well as politically acceptable, we are now in a position to move forward to implement needed controls.

In this light, we are most concerned about proposals to replace the best management practice approach with some form of an "average practice" alternative using the standard practice being carried out by the majority of landowners in an area. This option does not appear to emphasize the site-specific nature of nonpoint source controls, or the need for professional judgment in implementing the necessary practices.

Moreover, such an alternative approach would lose the political support for implementation of best management practices generated by the Section 208 planning process. API/NFPA, thus, urge that any new nonpoint source initiatives favorably considered by the Subcommittee retain the concept of best management practices as the appropriate means of dealing with nonpoint source pollution problems.

7. Can Financial Sanctions Be Used Effectively to Compel Compliance with Nonpoint Source Pollution Controls?

One suggestion discussed at some length during Senate Committee consideration of this issue involves cutting off federal financial assistance for any activity not conducted in compliance with required nonpoint source pollution control practices. On the surface, this proposal appears appealing because it does not involve any additional federal financial exposure. Indeed, such an approach could work to reduce the amount of federal financial assistance provided through various federal support programs.

In our view, however, the appeal of such an approach is largely superficial. The element of compulsion injected by such proposals for financial sanctions conflicts with current EPA policy under Section 208 to foster cooperative programs to implement nonpoint source controls. Experience with the Section 208 program suggests that an approach which emphasizes education, training, and, where necessary, incentives, offers the best chance of success -- especially in dealing with rural nonpoint source problems. A controversial sanctions program may make states reluctant to honestly identify problems and develop control programs.

In addition, such a proposal could have an unanticipated negative effect on water quality. For example, this type of approach could be interpreted to prohibit federal construction grants for waste treatment facilities to municipalities that do not develop urban runoff control programs. Similarly, many nonpoint source control efforts in the agricultural sector depend on USDA soil conservation and extension assistance as part of the necessary delivery mechanism. However, such federal assistance programs would presumably be denied to farmers that have not promptly implemented agricultural nonpoint source controls.

Moreover, such a proposal would obviously require detailed guidance as to: (1) how such a complicated sanction would be implemented and enforced in a justified fashion by the myriad of federal and state agencies involved; and (2) the specific federal assistance programs affected. We believe that a detailed analysis of current federal assistance programs would be necessary to even begin to consider this type of sanctions approach.

Finally, such an approach assumes that affected federal financial assistance provided through various programs is not directed in a fashion that is designed to achieve other important national purposes. We see no justification for the apparent presumptive desirability of implementing nonpoint source controls, over the other national goals served by affected federal financial assistance programs. The conflicts that would be created with these programs may require broader legislative review than can be provided within the jurisdictional purview of the Public Works and Transportation Committee.

As an alternative to this controversial approach, API/NFPA support, as indicated above, efforts by federal agencies to work with states to assure that the federal programs are consistent with state nonpoint source control efforts. More generally, we believe that positive initiatives rather than financial sanctions against nonpoint sources will have the greatest impact on improving water quality.

8. Should Nonpoint Source Control Efforts Be Concentrated on Priority Water Bodies?

One issue common to a number of the proposals that have been discussed is whether new nonpoint source control efforts should be concentrated on water bodies where nonpoint source pollution is creating a significant water quality problem. As indicated below, current data are not adequate to directly correlate specific nonpoint sources with water quality standards violations. However, the current state Section 305(b) water quality surveys provide sufficient information to identify those water bodies where nonpoint sources are an important water quality problem.

Consequently, API/NFPA believe that control efforts should not be focused on all water bodies with water quality problems. Rather, new initiatives should concentrate on those water bodies identified through Section 305(b) surveys (or other data sources) on which nonpoint sources are interfering with the achievement of the Act's clean water goals. Both federal financial assistance, as well as any state efforts, should give priority to those water bodies on which nonpoint source controls are most immediately needed.

9. Are Current Data Adequate to Correlate the Implementation of Nonpoint Source Controls with the Attainment of Water Quality Standards or to Resolve Interstate Nonpoint Source Water Quality Problems?

While existing data are adequate to begin the implementation of nonpoint source controls on priority water bodies, we still have much to learn about the relationship between the implementation of best management practices and improvements in measures of ambient water quality. Clearly, data gaps also exist in determining natural background levels of some nonpoint source pollutants, and in quantifying the impact of long range transport of pollutants as part of the bedload that already exists in most stream systems. Because of these information gaps, we believe that new nonpoint source initiatives should not be confounded by attempting to address issues where insufficient decision-making data exist, such as: (1) nonpoint source compliance with water quality standards; and (2) conclusively resolving interstate conflicts over long-range transport of nonpoint source pollutants.

We believe that a program focused on implementation of nonpoint source controls on priority water bodies is an important beginning for the long-range task of improving and protecting the nation's waters impacted by nonpoint source pollution. What such a program cannot do, however, is solve all of our water quality problems in short order.

D. API/NFPA Support H.R. 4037 with Modifications

As introduced, H.R. 4037 favorably responds to many of the concerns discussed above. The program framed by H.R. 4037 represents a positive step forward in the federal/state partnership to deal with nonpoint source problems. API/NFPA support H.R. 4037, with the two following modifications.

First, H.R. 4037 would add new Sections 319(a)(7) and 319(c) to the Act requiring states to: (1) identify federal activities which would be "inconsistent" with the state nonpoint source implementation program; and (2) recommend modifications to these federal activities. EPA would consolidate the state recommendations, and submit them to the appropriate federal agency. Finally, the affected agency would modify its activities, and "to the extent possible," carry them out in a manner that is consistent with the state program.

As indicated above, API/NFPA support the basic proposition that federal programs should be consistent with state nonpoint source control efforts. However, we are concerned that the proposal framed in H.R. 4037 contains ambiguous requirements which could result in substantial resource and program burdens on federal agencies.

For example, it is unclear how the term "inconsistent" would be defined for the purposes of identifying affected programs. Similarly, it is not apparent why EPA should serve as a clearinghouse for state recommendations, or whether other federal agencies would be bound by EPA's interpretation of the states' requests. Finally, we are uncertain as to how the requirement to carry out federal programs, "to the extent possible...in a manner which is consistent with" state desires would be interpreted by EPA or the courts.

To provide a greater degree of certainty in the specific federal program requirements imposed through this type of a provision, we prefer the approach outlined in Sections 319(a)(1)(G) and 319(f)(1) of S. 431 as reported by the Senate Committee. S. 431 references, and gives special deference to, existing federal/state program coordination procedures outlined in Executive Order 12372. In this fashion, a good deal of uncertainty concerning the specific requirements of this portion of the nonpoint source proposal is eliminated.

Second, proposed Section 319(h) of H.R. 4037 would provide the authority for EPA to convene interstate management conferences to deal with nonpoint source problems that affect more than one state. API/NFPA support the special conference approach to dealing with interstate problems. However, we are reluctant to endorse the proposition -- as H.R. 4037 appears to do -- that such conferences should be granted plenary enforcement authorities to modify existing state permits and/or plans. Such a proposal would make chaos of existing programs. More data on long range transport of nonpoint sources much be collected before interstate problems can be resolved in such a compulsory fashion.

VI. ADDITIONAL ISSUES OF CONCERN TO API/NFPA

In addition to our own legislative priorities, and issues raised in H.R. 3282 or H.R. 4037, two issues of substantial concern to API/NFPA have been raised during Senate deliberations on Clean Water Act amendments. These are reviewed below.

A. Antibacksliding

S. 431, as reported by the Senate Committee, contains an amendment offered by Senator David Durenberger, designed to deal with the maintenance of existing NPDES permit conditions. Section 13 of the bill would amend the NPDES permitting authority in Section 402 of the Clean Water Act to prohibit renewed or reissued permits from containing effluent limitations or other conditions less stringent than the previous permit.

This amendment would strike down a provision in an EPA November 18, 1982 proposal implementing the settlement agreement on the Consolidated Permit regulations. Under this proposal, the EPA Administrator would have the option to revise BPJ permit limitations when subsequently promulgated effluent limitations guidelines are less stringent.

The Agency's rationale for this proposed change is as follows:

> EPA is abandoning its "anti-backsliding" requirement in this circumstance for several reasons. EPA believes that in the application of nationally promulgated effluent limitations guidelines permittees should be given equal treatment, so that companies who have made good faith efforts to comply with previously imposed permit limitations will not be penalized nor placed at a disadvantage with respect to companies operating under subsequently issued, less stringent limitations.
>
> In addition, EPA is now involved in its "second round" of NPDES permitting under the Clean Water Act (CWA). A large number of NPDES permits have expired and must be reissued. As with the first round of issuance, it is expected that some of these permits will be issued on a case-by-case basis under the authority of section 402(a)(1) because of the absence of nationally promulgated effluent limitations guidelines. If the anti-backsliding rule remains in effect it is likely that many permittees will challenge any permit limitation issued in the absence of guidelines. Thus, the proposed changes would help to avoid widespread challenges to second round permits, a situation which could force the Agency to divert resources from permit issuance proceedings to evidentiary hearings and further legal challenges. (47 Fed. Reg. 52084)

The amendment appears to be a reaction to EPA's November 1982 proposed regulations implementing the settlement agreement on the Consolidated Permit regulations. However, we believe the language is much broader than intended, and would severely disrupt EPA's and States' ability to negotiate new permits. Below, we review both the Agency's proposal and the likely consequences of the Senate language.

On its face, the proposed amendment would prevent any increase in the allowable daily discharge limitations in NPDES permits, regardless of the justification for such increase. It would also prevent changes in any other permit conditions (such as monitoring and reporting requirements, or limitations on bypasses) which would be considered "less stringent."

However, there are many legitimate reasons, recognized in federal and state NPDES permitting regulations, for changes in permit limitations. The best examples of the type of changed circumstances which might justify increased permit limitations involve increased production or changes in -- or the addition of -- manufacturing processes. Due to the specific language of Section 13, permittees could not increase their production or change their processes unless they could do so without exceeding existing permit limitations. Other examples of appropriate reasons for modifying permit limitations include: (1) mistakes in setting original limitations; (2) changes in the level of pollutants in intake waters; or (3) changes justified by improved water quality modeling or monitoring.

The language of Section 13 could also discourage the future imposition of case-by-case effluent limitations in permits. Permit ~~writers~~ writer may delay issuing renewed permits rather than issue a permit with case-by-case BAT limitations, since such limitations would then be permanently fixed in the permit even if they later proved to be unreasonable. Permittees would tend to resist and delay case-by-case permits as long as possible, to avoid accepting limitations more stringent than those that the guidelines might later require of their competitors.

If technology-based permit limitations, once established, could never be relaxed, companies that moved first to receive their NPDES permits and commence the required treatment, prior to the issuance of national guidelines, would be at a disadvantage in comparison to plants which have delayed this permit process and installation of necessary controls. In such cases, the installation and operation of more extensive treatment than required by the national guidelines -- even where such treatment is not needed to protect water quality standards -- could be both unfair and unnecessary.

Similarly, there may be instances of prior inaccuracies in establishing effluent limitations necessary to meet water quality standards, or where improvements in water quality have occurred due to improved treatment by others or control of nonpoint sources. In these cases it may not be reasonable to categorically refuse to relax stringent treatment requirements which were previously necessitated by water quality problems. Clearly, in such cases, permit writers should be afforded some measure of flexibility to respond to local conditions.

Particularly problematic is the prohibition on any changes to "other permit conditions." The term "conditions" is normally used to refer to all legal requirements contained in the permit. It encompasses such things as testing protocols, discharge monitoring, notification requirements, compliance schedules, or upset and bypass provisions. There is certainly no justification for permanently fixing each such condition as it reads in the existing permit.

Enactment of this provision could discourage states from exercising their authority under Section 510 to impose conditions more stringent than those required by federal law. For example, many states are now requiring frequent testing for numerous toxic pollutants to provide a data base for possible future regulation. If such permit conditions could not subsequently be made less stringent, states may be less willing to suggest that such provisions be included in permits.

In summary, Section 13 of S. 431, while originally designed to accomplish a relatively simple purpose, raises a multitude of complicated permit policy issues. We believe that most, if not all, of these issues can be more efficiently resolved during the ongoing review of EPA permit regulations and procedures. Should an amendment similar to Section 13 of S. 431 be offered during the upcoming mark-up sessions, API/NFPA urge that the Subcommittee reject this inflexible approach to NPDES permitting.

B. Federal Common Law, the Resolution of Interstate Disputes, and the Preservation of Other Rights

Some have proposed that Congress consider an amendment to the Clean Water Act that would again allow suits alleging water pollution damage to be brought under the federal common law of nuisance. API/NFPA would oppose such a provision.

By way of background, a 1981 Supreme Court decision (Milwaukee v. Illinois) held that Clean Water Act regulatory programs preempt available federal common law remedies. During Senate debates on the Municipal Waste Water Treatment Construction Grants Amendments of 1981, the Senate adopted, without discussion, an amendment to the Clean Water Act to "make it clear that the Clean Water Act and other statutes do not displace, preempt, or in any other way disturb the federal common law."

House Conferees objected to the sudden insertion of the amendment, and it was withdrawn. The Conference Report noted "that failure to include this provision is without prejudice," and agreed to "examine further in the next session the best means to accomplish this intent." (House Rept. No. 97-408; page 27)

In Milwaukee v. Illinois, the Supreme Court held that the federal common law should apply only when Congress has not "spoken to a particular issue," and recourse to the common law becomes a necessary expedient. Such a remedy is not necessary here, especially because the Milwaukee decision neither forecloses any course of action available to a plaintiff under state law, nor prohibits a state from imposing effluent restrictions more stringent than federal standards.

If such an amendment is adopted, companies who are legally operating under the conditions of their Clean Water Act waste discharge permits conceivably could be subject to a new wave of litigation brought under the federal common law. Such a provision would allow an affected state or municipality -- and perhaps other private plaintiffs -- to sue in federal court to effectively rewrite carefully written discharge permits. The amendment would involve the courts ever more deeply in such day-to-day regulatory activities as inspections, enforcement, and standards setting. This would, in effect, undercut the entire NPDES program.

In our view, such an amendment would also subject, to further liability under the uncertain federal common law of nuisance standards, dischargers who in good faith invested significant amounts of capital to comply with the federal and state regulatory programs and their permit requirements. The procedures set forth in the Act for participation by the public in the permit issuing process already provide an adequate opportunity for the identification and weighing of the interests of third parties that may be affected by the discharge. Thus, on the basis of simple equity considerations, a proposed amendment of this nature lacks merit.

During Senate Committee deliberations on S. 431, the above, and similar, arguments were levied in opposition to a common law amendment. These arguments met with some success in that the Committee did not favorably consider an amendment to reinstate the federal common law of nuisance in Clean Water Act permit proceedings.

However, under the guise of remedying deficiencies in existing procedures for interstate review of NPDES permits, and preserving access to state common law; the Committee passed -- without significant discussion -- amendments to Sections 402, 505, and 511 of the Act. API/NFPA find these amendments extremely problemmatic for the reasons discussed below. Should similar amendments be proposed during the House deliberations, we urge their rejection by the Subcommittee.

1. Resolution of Interstate Disputes

To deal with interstate disputes, the Senate Committee proposed amendments to Sections 402(b) and (d), and Section 511 of the Clean Water Act to resolve such disputes over NPDES permits. Proposed Section 402(d)(2)(B) would require EPA to resolve disputes involving one state's objection to another state's permit. Proposed Section 402(b)(1)(F) would require reconsideration of a state-issued permit when another state provides notice that its waters are adversely affected. Proposed Section 511(e) would: (1) set forth procedures for EPA's resolution of such an interstate dispute; (2) provide EPA with authority to stop any contested discharge; and (3) provide other appropriate relief. When the dispute involves a permitted discharge, the complaining state must have exhausted available administrative relief.

The proposed amendments elaborate on procedures for permit review by other states currently found in Sections 401(a)(2) and

402(b)(5) of the Act. The stated goal of the new proposals is to make explicit in the statute, the Congressional intent that EPA must affirmatively act to resolve interstate disputes, on the record, in a fashion that is reviewable.

Currently, under Sections 401(a)(2) and 402(b)(5), a state affected by a permit being considered by an upstream state must frame its concerns around an impact on the "quality of its waters so as to violate any water quality requirement." EPA has defined this standard at 40 CFR §§122.52(d) and 122.62(d)(4) by requiring that any NPDES permit must "conform to all applicable water quality requirements under Section 401(a)(2) of CWA when the discharge affects a State other than the certifying State." Traditionally, affected states have raised concerns if an upstream state's permit would affect their water quality standards, including the antidegradation policy.

Unfortunately, the proposed amendments establish a far broader standard under which one state can dispute another's action. Proposed Section 402(d)(2)(B) would require EPA to resolve interstate disputes by determining "whether any violation of a water quality standard of the affected State, adverse effect on public health, or other demonstrated harm to the interests of the affected State will result from the issuance of such permit." (Emphasis added.) Similarly, proposed Section 511(e) would require a determination that "such pollution or contamination endangers the public health or welfare, or causes or contributes to a violation of water quality standards or other demonstrable harm." (Emphasis added.)

API/NFPA do not object to elaborating on the procedures for resolving interstate disputes, and requiring a decision from EPA. However, we have serious concerns with the increased breadth of review in dealing with such disputes.

First, the broader standard for challenging a permit will place permittees at considerably greater risk in obtaining approval for, and operating under, permits that could affect other states. The standard of "other demonstrable harm" sweeps-in concerns unrelated to water quality (i.e., the relative level of unemployment in a state affected by a new discharge compared to the state in which the discharge originated). Petitioners will likely assert that this ambiguous standard is an explicit statement of Congressional intent to broaden the scope of the inquiry when EPA must resolve interstate conflicts. Consequently, the amendment may increase the number and intractability of interstate disputes, rather than simply provide a better articulated mechanism for their resolution. Endless litigation could also result from such an ambiguous standard.

Second, the broader standard imposed by these amendments will require EPA to make an extensive series of findings in response to a petition from an impacted state. Even if EPA could successfully defend a decision using such an ambiguous standard, the breadth of the inquiry will extend significantly the time necessary to resolve the dispute, and involve EPA and the affected permittee in a never-ending, fact-finding exercise to certify that "no demonstrable harm" has occurred.

Third, the proposal may discourage an affected state from using and upgrading its water quality standards program to assess whether the activities of an upstream state are impacting its water quality. Under the broad language of the proposal, an affected state would use the opportunity to make a broader case involving more general harm. There will be no incentive to upgrade water quality standards to quantify the impacts created by an activity in an upstream state.

2. Preservation of Other Rights

The Senate Committee also approved an amendment to Section 505 of the Act to: (1) make it clear that the Clean Water Act does not preempt existing access for private individuals to remedies through state common law actions; and (2) provide states and municipalities with a mechanism for dealing with diversity of citizenship limitations in addressing interstate disputes.

The former amendment was designed to respond to assertions that the Clean Water Act could be read to preempt state common law remedies. The latter amendment was deemed necessary to provide adequate access to federal or state courts in order to adjudicate interstate disputes, where Clean Water Act remedies are not adequate to the task.

API/NFPA do not object to the stated intentions of the proposed amendment to Section 505. We do not oppose an amendment which would more clearly provide that existing state common law rights and liabilities are preserved. Nor do API/NFPA oppose the proposal to preserve liabilities under other Federal statutes for damages caused by noncompliance with any requirement of the Clean Water Act.

However, the language of the Senate amendment appears to: (1) create a new Federal right of action (with jurisdiction in Federal or State courts) for injuries caused by any "act or activity within the field covered by" the Clean Water Act; and (2) authorize appropriate relief under the applicable State statutory or common law. Thus, though intended to simply "preserve" existing rights, this provision could, if read improperly, establish -- for the first time under the Clean Water Act -- a new Federal right of action for damages caused by such activities as point source discharges, nonpoint source runoff, and accidental spills. To the extent provided under the applicable State statutory or common law, Federal (as well as State) courts would have the power to award damages and order abatement actions, beyond the requirements of the Clean Water Act.

This provision could place in the hands of Federal courts -- which would apply State statutory and common law -- substantial power to "second guess" and override: (1) the standards articulated by Congress in the Clean Water Act; and (2) the specific limitations and conditions contained in permits developed by the expert administrative agencies with which Congress entrusted this responsibility. We have seen no evidence to indicate that access to existing remedies in state courts under state law is inadequate.

VII. CONCLUSION

In conclusion, we reaffirm our support for the 1972 Federal Water Pollution Control Act and the water pollution control programs that have resulted since its passage. We believe that the 1972 Act and its 1977 amendments provide the proper basis for additional water quality improvement as we move into the decade of the 1980's. At the same time, we agree with the Administration that modest refinements to a number of Clean Water Act programs will enhance, rather than inhibit, this desirable goal.

We look forward to working closely with the Subcommittee to craft modest changes to the Act. We thank the Subcommittee for the opportunity to testify today. We would be pleased to respond to questions.

Appendix A

REDUNDANT TREATMENT OF COMPATIBLE POLLUTANTS
CASE STUDY
MEMPHIS, TENNESSEE

In the fall of 1978, the EPA Regional Office in Atlanta initiated action through the Department of Justice against Memphis, Tennessee for violation of the discharge permit for its wastewater treatment facilities. The violation was accompanied by allegations that the city had not made sufficient progress toward meeting the permit limitations. The city had constructed the facilities in question with a pre-1972 federal grant.

The EPA suggested to Memphis that the load of compatible pollutants to the treatment plant from Memphis industries should be reduced so that the plant could meet its limitation. In a subsequent federal court hearing, EPA stated that it would be reasonable for the industries using the Memphis treatment system to be required to reduce the BOD concentrations in their wastewaters to at least a concentration of 250 mg/l.

The city responded to this pressure by influencing the industrial users of Memphis' South Treatment Plant to hire a consultant to study how they could individually or collectively treat their wastewaters to achieve the industrial pretreatment limitations suggested by EPA, and perceived as being necessary. The study concluded that the most economical solution was to increase the capacity of the city's treatment plant.

The city was subsequently prosecuted, and a fine imposed, even though the facility had been constructed with a federal grant. This grant was prior to the enactment of the 1972 law and its requirement universally imposing secondary treatment for municipal systems. The city had constructed the treatment plant with the greatest capacity possible within the limits of the funds available. Memphis then tried to stretch the funds to meet secondary treatment limitations. (At a later date, EPA and the state agreed that Memphis was eligible for additional grants aimed at meeting the 1972 Act's goals.)

The eventual solution to the problem was largely achieved through applying various public and private technicians experienced in plant operational problems to the task of correcting equipment problems in new plants in order to provide increased plant capacity. In the end, the imposition of a concentration limit for compatible pollutants was found to be unnecessary, and the city has been successful in meeting its permit.

Obviously correcting operating problems was a much fairer and more economical approach than forcing some long-term customers to pretreat. However, EPA's advocacy almost forced industrial users of the Memphis system to have to pretreat for compatible pollutants.

CASE STUDY A -- PLYMOUTH, NORTH CAROLINA

In the mid-1970's, Welsh Creek near Plymouth, North Carolina was one of a number of water courses which had been classified by the state for uses less than the support of fish and aquatic life. The creek originates as drainage from a swamp. At the point in question here, it is largely a backwater of the Roanoke River. Flow through the creek is often near zero. It is further characterized as being of dark color, low pH, and of elevated temperature. Under natural conditions, dissolved oxygen (DO) periodically approaches zero. Clearly, the creek is naturally incapable of supporting an aquatic community. Accordingly, the state assigned a DO criterion lower than required for aquatic life.

Nevertheless, EPA insisted that the creek be classified for the support of fish, and carry with it a commensurate DO criterion. This was reportedly based on a rationale that: (1) some water quality parameters were consistent with such a use; and (2) a variance could be sought for those parameters which were inconsistent. As a result, the state accepted the Agency recommendation. A pulp and paper mill discharging to the creek sought a variance. Recognizing the character of Welsh Creek, the state responded by lowering the dissolved oxygen requirement.

However, the variance was rejected by EPA on the basis that its criteria for granting such a variance had not been met. EPA further imposed a Federal standard calling for 5.0 mg/l DO level. The mill in question, faced with the futility of maintaining a dissolved oxygen condition which was naturally unattainable, had little recourse but to enter into a compliance agreement wherein effluent would be diverted through a 2 mile pipeline directly to the Roanoke River at a cost of eight million dollars.

CASE STUDY B — KALAMAZOO, MICHIGAN

The Kalamazoo River in the vicinity of Kalamazoo, Michigan has a use classification directed toward protection of fish and aquatic life. Perceived to be consistent with that goal, are dissolved oxygen (DO) criteria for an average DO of 5.0 mg/l and a minimal level of 4.0 mg/l to be met at all times.

To obtain these levels, point source controls have been agressively pursued. They include the construction of an advanced treatment plant serving: (1) Kalamazoo and adjacent communities; and (2) a number of industrial dischargers. Included among the latter are several paper manufacturing facilities.

Several studies carried out in the late 1970's have brought into question whether the required dissolved oxygen criteria will be attained. A 1978 report published by the Michigan Department of Natural Resources points out that:

> "The treatment of oxygen demanding wastes discharged to the Kalamazoo River beyond conventional, stable effluent levels is not cost effective. This is because the DO deficits due to these wastes are small compared to the (algal type) respiration effects on DO. These respiration effects are primarily responsible for limiting the assimilative capacity of the Kalamazoo River."

A 1979 update of the Section 208 Areawide Waste Treatment Plan prepared by the South Central Michigan Planning Council alludes to a contributing factor of significance to the above observation:

> "The phosphorus loading (from non-point sources in sub basin 204 east of Kalamazoo) is well in excess of the levels required to promote nutrient enrichment of surface waters."

Sub basin 204 is a "rural" sub basin. Ninety-three percent of the sub basin consists of crop land, pasture, and forest.

A second factor is identified in a 1981 study on Stormwater Pollution in the City of Kalamazoo prepared under the auspices of the South Central Michigan Planning Council. The study report indicates that the load of oxygen-demanding substances associated with stormwater runoff on typical storm days alone exceeds the assimilative capacity of the Kalamazoo River. Typical storm day conditions were thought to prevail 75 days/year. The report goes on to suggest that:

> "Though days of storms will probably not be days of minimum river flows, the (stormwater) BOD5 contribution may cause significant degradation of the river quality for a period of time, perhaps below the allowed standard."
> (emphasis added)

Thus, recent information suggests the possibility that nonpoint source loads of BOD and nutrients could, by themselves, cause violations of existing water quality standards (5 ppm DO daily average, at least 4 ppm DO at all times). Additional study will be required to determine the extent to which these nonpoint sources must be controlled to assure compliance with dissolved oxygen standards. The state should be allowed the flexibility to modify the applicable water quality standards in the event that further study demonstrates that existing standards are not attainable due to nonpoint sources that cannot feasibly be controlled.

CASE STUDY C — FLORIDA INTERCOASTAL WATERWAY

Dissolved oxygen is probably the clearest example of a need for flexibility on a local scale. Virtually all investigators will agree on a need to recognize the tremendous natural variations that occur in the case of dissolved oxygen. Dispute arises only when one attempts to establish criteria. We suggest, as is implied in the American Fisheries Society's "Review of the EPA Red Book: Quality Criteria for Water" (Am. Fish. Soc., Bethesda, Maryland, 1979), that no single absolute criteria can ever succeed. Local flexibility must be available for natural local differences and biological needs.

One specific example currently exists in the northern portion of the intercoastal waterway in Florida — a situation with doubtless dozens of counterparts throughout especially the Southeastern portion of the United States. In this area of common natural low dissolved oxygen values, the state of Florida has attempted to accommodate, to a degree, the present national water quality criteria of a minimum of 5 mg/l dissolved oxygen by specifying an average value of 5, with a minimum of 4 mg/l. However, even this "bending" of the national stated minimum is not adequate to reflect truly natural conditions that have been validated as dropping into the 3 mg/l range. Presently ongoing activities by the state to consider "waste load allocations" in this area are certain to result in technically unresolvable questions when national policy forces the state agency to base its decisions on clearly erroneous base lines of water quality.

Dissolved oxygen is the first parameter that comes to mind when one considers criteria differences in water quality. This is an understandable situation in view of the length of time and effort on the study of oxygen. It is likely that, as other parameters are studied in depth, similar problems will evolve.

CASE STUDY D -- MONTICELLO, MISSISSIPPI

As part of its 1973 triennial review of water quality standards, the Mississippi Game and Fish Commission adopted, with subsequent EPA approval, a dissolved oxygen (DO) standard of not less than an average 5.0 mg/l, but allowing an average level as low as 4.0 mg/l for short periods of time during extremely low water levels (i.e. at or less than 7Q10). In April 1977, following the next triennial review, the state chose to submit its existing standard for EPA approval. Unfortunately, EPA disapproved the dissolved oxygen criteria and gave the Mississippi Air and Water Pollution Control Commission until October 1977 to promulgate an appropriate standard. EPA recommended a daily average of 5.0 mg/l and a minimum of 4.0 mg/l. In reconsidering its action, the Commission concluded that the state standard was properly derived and, in the public interest.

EPA responded in July 1978 by formally proposing a DO standard of 5.0 mg/l to be met at all times. A less restrictive criteria ultimately promulgated by the Agency in 1979 requires an average 5.0 mg/l with an instantaneous minimum of not less than 4.0 mg/l. The Agency's authority to take this action was subsequently upheld by the Courts.

At the present time, the Pearl River at Monticello, Mississippi is designated for a use supportive of fish and wildlife. The river does, in fact, support an aquatic community native to the area and would do so under dissolved oxygen conditions represented by the criteria originally submitted by the state. Thus, designating a lesser use is neither warranted nor would it be politically acceptable. Furthermore, in the late 1970's EPA would not likely have accepted a use designation less than support of fish and wildlife.

The fact remains, though, that compliance with the dissolved oxygen criteria has imposed an environmentally unwarranted burden upon a local pulp and paper industry discharger. Even under the state's proposed criteria, the Pearl River at Monticello was recognized to be water quality limited. Effluent limitations to accomodate the dissolved oxygen requirements were met at the local pulp and paper mill through a controlled discharge program. The ability of the mill to contain discharges during the low flow conditions is contingent upon an ability to maximize discharges during high flow periods. Thus an ability to comply with the EPA-imposed DO criteria has been largely a result of higher than normal flows during non critical periods — leaving ample capacity in a 220 acre impoundment to store effluent during the critical periods. Under circumstances where stream flow patterns are more normal, compliance with the water quality criteria is questionable.

Statement for the Record

of

Dale McGreer
Forest Hydrologist
Potlatch Corporation

On Behalf of the

American Paper Institute

and the

National Forest Products Association

Before the

Subcommittee on Water Resources

Committee on Public Works and Transportation

of the

United States House of Representatives

November 16, 1983

I. Introduction

Good morning. I would like to thank Chairman Roe and the members of this Subcommittee for allowing me to testify this morning on behalf of the American Paper Institute and the National Forest Products Association (API/NFPA) with respect to the control of silviculture nonpoint sources of water pollution.

My name is Dale McGreer. I am a forest hydrologist employed by the Potlatch Corporation in Lewiston, Idaho. I also serve on the API/NFPA Nonpoint Water Quality Committee. API/NFPA are national trade associations representing over 2,000 member companies who own and manage forest lands and manufacture pulp, paper, and solid wood products. API/NFPA members have a direct interest in the effective implementation of nonpoint source pollution control programs.

For the past five years I have been involved in the development of nonpoint source control programs on a national basis for my company. In addition, I have coordinated our company's participation in the development of programs in Idaho, Arkansas, and Minnesota to address silviculture nonpoint source pollution under Section 208 of the 1972 Federal Water Pollution Control Act.

I have also participated in designing industry research programs on silviculture nonpoint source problems, working with the National Council of the Paper Industry for Air and Stream

Improvement, Inc. (NCASI). NCASI is the environmental, technical studies arm of the forest products industry. Since 1977, NCASI has conducted industry sponsored research projects on the water quality impacts of forest management activities, the effectiveness of improved management practices to control silviculture nonpoint source pollution, and the implementation of federal and state silviculture nonpoint source control programs.

Much of the interest in the water quality impacts of forestry activities has been focused, in recent years, through the Clean Water Act's Section 208 program. Through Section 208 EPA fostered active programs in a number of states to: (1) assess the impacts of forestry activities on water quality; and (2) devise management practices and control programs, where necessary, to achieve water quality goals.

The results of state Section 208 planning efforts to date have shown considerable variation in programs from state to state. This variability makes it very difficult to draw any generalizations about the 176 areawide and 49 state Section 208 planning programs. However, based upon the data accumulated as a result of the Section 208 planning process, we believe that a general perspective on the water quality impacts associated with silviculture activities has been gained by EPA, the states, and the forest industry.

A general summary of the impact of forestry activities on water quality was provided by the API/NFPA statement for the record on November 2. In addition, attached to this statement is NCASI's "1982 Review of the Literature on Forest Management Practices, Hydrology, and Water Quality Protection and Management." (Attachment 1)

The results of such surveys -- based on existing water quality data (which in many cases are admittedly still incomplete) -- suggest that silvicultural activities have not been considered a major, overall, nationwide water quality management issue. In most cases, sediment is considered the primary source of pollution from forestry activities. However, the 1978 study report of the Society of American Foresters' Clean Water Act Task Group indicates that sediment from forest lands is estimated to be less than 4% of the total man-caused sediment in the Nation's waters. This is particularly significant considering that there are 718 million acres of forested land in the United States which constitute approximately one-third of the total land area.

In the balance of this statement, I will review our involvement in the Section 208 process with states that have been active with the silviculture category of nonpoint sources. The data base for this review is provided by NCASI's January 1983 report, "Summary of Silviculture Nonpoint Source Control Programs - 1982." A copy of this NCASI report is also attached. (Attachment 2)

Through our review of state Section 208 programs, we have found three basic principles that appear common to the varied state efforts to address water quality problems from forestry activities. These principles include: (1) site-specific application of nonpoint source controls; (2) flexibility in developing control programs; and (3) utilization of existing expertise in nonpoint source control.

II. General Principles Common to State Section 208 Programs

A. Site-Specific Application of Nonpoint Source Controls

Because of the variability in the nature and types of nonpoint source pollution problems, efforts to address nonpoint source pollution have been focused at the state level. Control of nonpoint source pollution requires solutions that can be applied in a site-specific fashion. EPA's current regulations and guidance laudably recognize the need for this type of focus in the Section 208 program.

EPA's approach to developing Best Management Practices (BMP's) to protect water quality has fostered the concepts that: (1) states, as opposed to federal agencies, determine whether a practice is indeed a BMP; (2) alternative practices must be examined; and (3) such practices must be technologically and economically practicable before they are adopted. EPA's approach has also supported the notion that the application of Best Management Practices must be tailored to site-specific conditions.

BMP's have, therefore, varied from site to site depending on the nature of particular silvicultural activities and related potential water quality problems.

B. Flexibility in Developing Control Programs

In addition to the need for site-specificity in the development of control practices, EPA has laudably provided the states with the option to implement a broad spectrum of control programs. We strongly support EPA's policy of providing the states with sufficient flexibility to consider a variety of alternative control programs for dealing with silviculture as well as other nonpoint sources of pollution. In the same way that specific silviculture practices (and any related nonpoint source pollution problems) vary from state to state, so have the control programs that the states are implementing.

For example, a number of states have developed programs emphasizing education of, and training programs for, landowners and forestry operators. This type of program is well adapted to many of the southern states because of the predominance of small, private, non-industrial landowners in these states. In the South, 70% of the forest land base is held by non-industrial landowners. The nonregulatory approach, with the subsequent utilization and improvement of existing extension, education, training, and incentive programs is the most effective way to assure the implementation of Best Management Practices on the ground. In the

South, particularly, this approach has proven successful in encouraging good forest management.

In other states, other types of approaches have been developed. The West Coast states have adopted state forest practice acts which are regulatory programs designed to control various aspects of forest management, including water quality impacts. In some of the northeastern states, licensing programs for forest operators and loggers have been implemented as a result of the Section 208 planning program. States should continue to be allowed to evaluate and utilize a wide variety of possible nonregulatory and regulatory programs for the control of nonpoint source pollution.

C. Utilization of Existing Expertise in Nonpoint Source Control

A final important element that has been recognized in the administration of nonpoint source control programs is the need for the application of technical and professional expertise in the development of BMP's and program implementation. The variability in silvicultural activities and nonpoint source water quality impacts has made the application of forestry expertise an essential part of the process.

In every state where we have an interest, we have encouraged the state forestry agency -- the agency with silviculture expertise in the state -- to take the lead in developing the silviculture portion of the Section 208 plan. In many cases, state forestry agencies have been chosen as the implementing agencies for the silviculture portions of the Section 208 plans. Focusing the nonpoint source aspects of Section 208 planning at the state, rather than the areawide level, is one way of taking advantage of the existing expertise of many state agencies in dealing with some nonpoint source categories.

In order to provide a more detailed perspective on where state Section 208 efforts have led us, we would like to share the specific findings and conclusions of NCASI's most recent survey of state silviculture nonpoint source control programs. As indicated above, the complete report is attached. We will highlight major points below.

III. Summary of Specific Results of the 1982 NCASI Survey of State Programs

A. Nature of State Programs to Control Nonpoint Source Contributions from Silvicultural Activities

1. Regulatory Programs

Seven states can now be characterized as having regulatory programs for silvicultural activities. Oregon, Washington, Idaho, and California base much of their nonpoint source control programs on the provisions of forest practice act regulations. The Alaska Forest Resources and Practices Act has "advisory" Best Management Practices. The prior notification requirements in this Act allow for water quality protection.

Nevada has detailed rules under the Nevada Forest Practice Act which cover erosion control and stream-protection zones. The mandatory use of performance bonds to assure satisfactory compliance with the Nevada rules qualifies this program as regulatory in nature.

In New Hampshire, the "Intent to Cut" form required for harvesting operations allows an operator to sign an agreement to implement BMP's. The "Intent to Cut" form permits monitoring of operations for water quality protection. Failure to sign the agreement to use BMP's, followed by subsequent water quality problems, will result in the operator being required to submit plans for future operations.

2. Quasi-Regulatory Programs

Four states do not have program specifically covering silvicultural operations, but have opted instead to emphasize existing regulations designed to control sediment or organic debris in streams. These state programs have been designated as quasi-regulatory because state regulations are not comprehensive for forest activities, or are directed mainly at non-silvicultural activities.

Massachusetts, for example, has legislation requiring prior notification before harvesting and a Slash Law requiring debris be kept out of streams. In Pennsylvania, all activities causing soil disturbance are subject to regulation under a Clean Streams Law. In Maine, road construction BMP's and regulations limiting erosion and sedimentation are enforced, while the silvicultural program involves mainly educational efforts. Hawaii has strict land-use planning. Under one land-use category, sediment losses are controlled.

3. Nonregulatory Programs

The majority of states that addressed silviculture (twenty-seven) have adopted nonregulatory control programs. Almost all of these programs involve education efforts to inform operators about BMP's which have been developed for the state. Educational material used includes pamphlets, instruction guides, TV public-service announcements, newsletters, posters, and slide-tape shows. Workshops, tail-gate lectures, and demonstration projects are also being used.

EPA recently sponsored a workshop to assist state forestry, water quality, and extension-service personnel from 6 states (Arkansas, California, Montana, New Hampshire, Oklahoma, and West Virginia) with their Section 208 educational programs. Several states will be using EPA's and the U.S. Forest Service's National Training Package (NTP) material which is now available for education purposes.

Another technique used by several states to encourage the use of BMP's is to integrate water quality protection practices into normal forest-extension planning. State studies have shown that professional consulting -- provided either by state foresters, industry foresters, or private consultants -- results in a higher rate of BMP use and effective water quality protection.

A third technique used in a few state programs involves incentives to promote the use of BMP's. The best developed cost-sharing program is Minnesota's, where $100,000 was used annually, specifically to encourage the use of silvicultural BMP's. This program, which lasted three years, is now being considered for reinstitution. Several other states are attempting to use federal programs like the Forest Incentive Program (FIP) and the Agricultural Conservation Program (ACP) to encourage BMP implementation.

A final technique for voluntary programs might be called a peer-pressure or peer-encouragement approach. For example, in Vermont, when a complaint about a forest operation is received and found to have some basis by a State Water Resources Investigator, a committee from the Vermont Timber Truckers and Producers Association will visit the site and encourage the logger to resolve the problem with appropriate practices.

non-industrial operations are the most likely to have water quality problems.

C. State Assessments of Section 208 Program Accomplishments

By 1982, several state programs had been operating for a sufficient time so that judgments about program success (and even surveys or enforcement records to document progress) are available. The most important step in implementing a lasting nonpoint source control program involves the integration of water quality concerns into normal forest operations. Comments by state agency personnel indicate that this important step is being accomplished for many programs.

State agency personnel report improvement in both water quality concerns, and cooperation with control programs by forest managers. Several states have conducted field assessments of their programs. Most of these assessments have shown effective water quality protection, and an increased awareness of BMP's associated with forestry activities.

Another measure of program success or failure is the number of enforcement actions and complaints concerning forest operations. In this respect, enforcement records and program assessments have shown that the regulatory programs -- in states which used forest practices acts -- have been effective.

The NCASI survey did discover, however, that some states are finding additional control needs as they proceed to implement their programs. We plan to continue to work closely with these states to assure that these problems are corrected. The attached NCASI report provides considerable detail on the progress being made in each state with a silviculture nonpoint source control program.

D. Prospects for Continued and Effective Section 208 Program Implementation

In 1980, some state administrators predicted that nonpoint source control activities under Section 208 would cease unless federal appropriations were provided to support implementation of state programs. While some monies have been made available to state silvicultural nonpoint source control programs (usually as carry-over Section 208 funds), most federal support has or will shortly be terminated. Therefore, in 1982, NCASI asked state agency personnel to project the future of their programs.

Of the 40 states with a silvicultural nonpoint source control program, 30 projected that their programs would continue as currently operated. States like Oregon and Washington consider the operation of their programs to be independent of Section 208 funding needs because the forest practice acts are financially supported through the states. However, these programs will be cut back in their ability to conduct extensive studies on complex water quality protection questions that might indicate needed forest practice changes. Washington, for example, used $487,000 in Section 208 grants between 1977 and 1981 to conduct studies on forest roads, stream management zones, slope-stability, compliance with the Washington Forest Practice Act, and other issues.

Other states provide substantial financial support to their forest nonpoint source pollution protection programs so that continued effective programs can be anticipated. Many states will have to reduce their activity levels. However, since educational materials have been produced and BMP's have been developed and evaluated, the continuation of these programs with reduced funds is possible. Extension foresters will be incorporating BMP considerations into their informational efforts for these states.

In some states, including California and Kentucky, agency personnel area anticipating an adjustment period as programs are finalized and implemented. In other states (Georgia, New Hampshire, New York, North Carolina, and West Virginia) agencies will be making decisions about future program direction based on the results of ongoing (or recently completed) assessments.

Some state agency personnel have reported that programs will be downgraded because of lack of funds. In New Jersey, management emphasis is being shifted from private lands to state lands and the activity level of Section 208 is described as "maintenance." In Virginia, agency personnel anticipate a decrease in state activities in silvicultural nonpoint source control, and identify the need for "industry and consultants" to continue the program. In Montana, staff working on an education program have been cut, but most of the educational material for a workshop program is apparently ready. At least part of an educational program will be accomplished.

Summarizing, it appears that the tools (educational material, BMP's) for programs have been developed. Most states will be carrying out their nonpoint source control responsibilities using either state funding, low-cost, industry-state cooperative programs, or by incorporating nonpoint source control recommendations into normal forest planning and extension activities. However, lack of adequate funding will slow program development in some states.

E. Estimates of Benefits and Costs of Section 208 Silvicultural Nonpoint Source Control Programs

Substantial costs have been incurred and benefits accrued as a result of the nation's silvicultural nonpoint source control programs. A problem in assessing program worth has been the lack of cost and benefit data for state programs. There remains an information gap on the costs and benefits of most nonpoint source programs. For example, in response to the question, "are there any estimates of the costs and/or benefits of the silvicultural nonpoint source control programs for your state?" only a few state representatives had cost estimates. No one could provide any benefit estimates.

API/NFPA support the basic proposition that federal programs should be consistent with state nonpoint source control efforts. However, we are concerned that the proposal framed in H.R. 4037 contains ambiguous requirements which could result in substantial resource and program burdens on federal agencies.

For example, it is unclear how the term "inconsistent" would be defined for the purposes of identifying affected programs. Similarly, it is not apparent why EPA should serve as a clearinghouse for state recommendations, or whether other federal agencies would be bound by EPA's interpretation of the states' requests. Finally, we are uncertain as to how the requirement to carry out federal programs, "to the extent possible...in a manner which is consistent with" state desires would be interpreted by EPA or the courts.

To provide a greater degree of certainty in the specific federal program requirements imposed through this type of a provision, we prefer the approach outlined in Sections 319(a)(1)(G) and 319(f)(1) of S. 2006 as reported by the Senate Committee. S. 2006 references, and gives special deference to, existing federal/state program coordination procedures outlined in Executive Order 12372. In this fashion, a good deal of uncertainty concerning the specific requirements of this portion of the nonpoint source proposal is eliminated.

Second, proposed Section 319(h) of H.R. 4037 would provide the authority for EPA to convene interstate management conferences to deal with nonpoint source problems that affect more than one state. API/NFPA support the special conference approach to dealing with interstate problems. However, we are reluctant to endorse the proposition -- as H.R. 4037 appears to do -- that such conferences should be granted plenary enforcement authorities to modify existing state permits and/or plans. Such a proposal would disrupt existing programs. More data on long range transport of nonpoint sources much be collected before interstate problems can be resolved in such a compulsory fashion.

Mr. Chairman, I would like to thank this Subcommittee for the opportunity to testify. I will be happy to answer any questions you may have.

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May 2, 1985

BY HAND

The Honorable Robert A. Roe
Chairman
Subcommittee on Water Resources
House Committee on Public Works and
Transportation
2243 Rayburn House Office Building
Washington, D.C. 20510

Dear Chairman Roe:

Enclosed are several copies of a statement by Mr. Fred J. Gentile, Senior Vice President of The Brooklyn Union Gas Company, for inclusion in the record of the March 25 and 30 hearings held by the Water Resources Subcommittee concerning legislation reauthorizing the Clean Water Act.

Mr. Gentile previously submitted testimony to the Subcommittee concerning the gas utility facilities relocation expense implications of the Clean Water Act Construction Grants Program. The House responded last year to that testimony by adding § 33 to the Water Quality Renewal Act of 1984 (H.R. 3282). Section 33 directed the EPA Administrator to reimburse, at the statutorily applicable federal share, the gas utility relocation costs incurred in connection with the EPA-funded Red Hook and Oakwood Beach wastewater treatment projects. In this statement Mr. Gentile recommends that the Subcommittee retain that provision again this year. It is now designated as § 34 in H.R. 8.

The Honorable Robert A. Roe
May 2, 1985
Page Two

Brooklyn Union appreciates the opportunity to submit this statement and the Subcommittee's consideration of its views.

Very truly yours,

Irma Tyler-Wood

Enclosures

cc; The Honorable Edolphus Towns
Mr. John Doyle
Mr. Errol Tyler
Mr. Kenneth Kopocis
Ms. Karen Johnson

The Brooklyn Union Gas Company
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STATEMENT OF
FRED J. GENTILE,
SENIOR VICE PRESIDENT
of
THE BROOKLYN UNION GAS COMPANY
before the
WATER RESOURCES SUBCOMMITTEE
of the
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
on the
ALLOWABILITY OF UTILITY RELOCATION COSTS
UNDER THE CLEAN WATER ACT
CONSTRUCTION GRANTS PROGRAM
May 1, 1985

About two years ago the Brooklyn Union Gas Company advised this subcommittee concerning two issues: one was the federal government's failure to treat gas utility relocation costs incurred because of Clean Water Act construction projects in a consistent, just, and equitable manner, and the second was the harsh and disproportionate economic impact that that failure has had on gas utility customers in general, and Brooklyn Union's customers in particular.

My statement today again emphasizes these issues, but now with cautious optimism that congressional assistance will be forthcoming as to the Red Hook and Oakwood Beach projects. To date, these projects have caused about $2.250 million in gas utility relocation expenses, expenses which would not have been incurred but for the projects. By the time the projects are completed, we anticipate relocation expenses to total some $15.750 million. Our customers, about 40 percent of whom are low-income families or elderly citizens living on fixed incomes, will have to pay these costs in increased utility bills. The Red Hook and Oakwood Beach projects benefit the entire population of New York and the Hudson Valley, yet only the residents of Brooklyn, Queens and Staten Island, who are customers of The Brooklyn Union Gas Company pay for these benefits twice, once when they pay their federal taxes and again when they pay their gas bills.

The injustice resulting from this situation was exactly what Congress intended to prevent when it enacted a statutory mandate in the Clean Water Act construction grants program which requires the federal government to reimburse states and municipalities for 75 percent of the costs of federally-financed water and sewage treatment projects. Congress recognized that restoring and maintaining the nation's water was a national problem, the solution to which was in the national interest. Federal cost-sharing was designed to prevent any one state's or municipality's citizens from bearing a disproportionate share of the costs of such projects. The present posture in which Brooklyn Union finds itself is not only unjust and inequitable, but it is also directly contradictory to the spirit of the Act.

BACKGROUND

Each year, water and sewer construction projects financed by the federal government under the Clean Water Act necessitate the relocation of gas facilities owned by public utility companies such as Brooklyn Union. The relocation process ranges from providing protection or adjustment of existing gas facilities to complete relocation and replacement of the facilities. The cost of protecting, relocating and replacing gas lines located in city streets to make way for Clean Water Act construction projects is as much an expense of federal treatment and sewer construction projects as the cost of labor and materials employed in those projects. Like labor and materials, gas utility facilities relocation is integral to the successful completion of the projects, and like expenses for labor and materials, gas utility relocation expenses would not have been incurred but for these projects. Yet, in most cases, and in the case of those projects affecting Brooklyn Union in particular, the federal government will reimburse 75 percent of a project's labor and materials expenses yet refuses to reimburse any of the gas utility relocation expenses incurred on the very same project.

A. The Magnitude of Utility Relocation Costs Caused by EPA-Assisted Projects: Brooklyn Union

Under the Clean Water Act, EPA is presently funding two large water pollution control projects that affect Brooklyn Union's service area. These are the Red Hook and Oakwood Beach water pollution control projects. These projects require substantial relocation of gas utility lines at considerable expense to Brooklyn Union. For example, for every $100.00 the government spends on these projects, Brooklyn Union is forced to spend approximately $9.53 in gas utility relocation expenses. Thus, in connection with the Red Hook project, Brooklyn Union will incur an estimated $3.670 million in relocation expenses for work that would not be necessary but for this federal water pollution control project. Even more significant are Brooklyn Union's utility relocation costs resulting from the EPA-assisted Oakwood Beach water pollution control project in Staten Island. That project will cost Brooklyn Union an estimated $12.080 million in relocation expenses.

There are two important points to be gained from these figures. One is that the gas utility relocation costs to Brooklyn Union are significant. Those costs on the Red Hook and Oakwood Beach projects alone will total $15.750 million. The other is that these costs will be borne solely by Brooklyn Union's customers unless the present law is changed to correct the situation.

B. Current Law: Passing the Utility Relocation Burden of EPA-Assisted Projects from the Federal Government to Local Gas Utility Customers

Under the Clean Water Act, as administered by the EPA's Office of Water and Waste Management, a construction grant program provides federal funding for the construction of municipal treatment works which are required to meet state and federal water quality standards. Under the program, EPA assumes 75 percent of allowable costs of approved construction projects.

The Office of Management and Budget's Circular, A-87 (January 15, 1981), is intended to establish uniform principles and standards for determining allowable costs under grants and contracts with state and local governments. Subsection C of Attachment A of OMB Circular A-87 sets forth the guideline that allowable costs must "be authorized or not prohibited under State or local laws or regulations."[1] The practical effect of this guideline, as interpreted by EPA, has been to allow the federal government to avoid -- through the operation of local property laws -- compensating utilities for relocation expenses incurred as a result of the EPA-assisted construction projects.

The source of the federal government's ability to escape payment for the cost of utility relocation is that under the law of many states, public utilities are required to relocate their facilities to make way for state construction without reimbursement of the costs incurred. The legal theory by which many states, including New York, deny utilities direct compensation for their relocation expenses is that because utilities possess only a "privilege" or "franchise" to locate service lines in the public streets, they operate at the sufferance of the state and do not have the "right" to operate in any particular place. Under this peculiar theory, it is frequently held that the state may require the utility to move its facilities without paying any compensation.[2] As EPA has administered the Clean Water Act, since the state may avoid paying its share of the cost of utility relocation, the federal government allows the full cost of relocation to fall on the utility and its customers.

This practice, by which the federal government fails to pay its fair share, or, for that matter, any share of the cost of a federally-induced project, must be changed.

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[1] EPA has codified its interpretation of this criterion at Section 35.940-1(k) of Title 40 of the code of Federal Regulations, which states that allowable costs include "Removal and relocation or replacement of utilities, for which the grantee is legally obligated to pay."

[2] One of the peculiarities of this theory is that if the relocation was necessitated by a project conducted directly by the federal government, just compensation would have to be paid. Thus, it is only by funneling the federal money for these projects through the states that the federal government takes advantage of the quirks in local property law and avoids its obligation to pay compensation.

C. The Current Policy Regarding Utility Relocation Costs Is Misguided, Inappropriate, and Inequitable to the Local Gas Utility Customers Who Must Pay More Than Their Fair Share of Federally-Assisted Projects

There are compelling reasons why the government's current policy toward utility relocation expenses should be reversed:

1. As a result of this practice, gas utility customers are forced to pay more than their fair share of Clean Water Act construction costs. The Clean Water Act programs which finance construction projects requiring relocation of gas utility facilities are conceived and designed to benefit the general welfare: "The objective of this [Act] is to restore and maintain the . . . integrity of the Nation's waters." 33 U.S.C. § 1251(a). No special benefit is conferred upon gas utility customers by these projects. Gas utility customers, however, pay twice for these construction projects -- once in the form of federal taxes, and again in the form of increased utility rates. This inequitable burden should be relieved, and the full cost of construction should be spread equally among all taxpayers.

Similarly, the costs of Clean Water Act projects are not born equally by those who reap the benefits of the program. Projects such as those at Red Hook and Oakwood Beach directly benefit all citizens in the Hudson Valley and, at least arguably, the entire northeast United States. To require a select group of individuals -- Brooklyn Union Gas Company customers -- located in a distinct geographic sector -- Brooklyn, Queens and Staten Island -- to pay more than a pro rata share of the project costs clearly places an inequitable and unjust burden on those individuals.

2. The current policy results in discriminatory treatment between gas customers in different states. The present practice of predicating the compensability of utility relocation expenses upon the intricacies of state property laws has created a situation in which some states' utilities are reimbursed from federal funds, while the relocation expense on comparable projects in other states goes uncompensated. The burden of federally-financed construction should not be borne disproportionately by the gas consumers of one state, while similarly situated gas consumers in another are relieved of this burden.

3. The failure to recognize the full cost of public construction leads to economic waste. Public utilities are given no voice in planning federally-financed projects in a manner which might reduce these burdensome costs. The federal government does not intervene to assure that relocation is approached economically and efficiently, as would be the case where federal funds were at stake. And, because the expense of utility relocation is not paid by the state or municipality, local project administrators tend to

be less concerned about the manner in which those expenses might be reduced.

4. The Clean Water Act policy of basing reimbursement of utility relocation costs on the intricacies of state law disrupts the national energy policy. The full cost of relocation, while initially borne as an out-of-pocket expense by the utility, is ultimately paid for by the consumer in the form of higher gas prices. This increment to the price of gas artificially stimulates demand for alternative sources of energy when gas, in reality, may be the most cost-effective form of energy available. As presently administered, the system extracts an extra charge from gas consumers, and confers an economic boon to fuel oil consumers who may well be in the very same geographical class of alleged "beneficiaries" of the Clean Water Act project.

5. The historical quirk which allows some states to avoid payment of utility relocation expenses upholds no public policy and has no rational application to utility relocation necessitated by federal projects. As an historical matter, most utilities, including Brooklyn Union, were invited by the states onto the public way in order that the states might assure their citizenry adequate and efficient utility service. If the utilities -- particularly those asked to operate in metropolitan areas -- had been required to purchase private rights-of-way to lay their lines, the cost would have been prohibitive. The franchise was offered to the utilities as a means of ensuring affordable utility service. Here, anomalously, the federal government is exploiting the nature of the franchise to increase the cost to the consumer of utility services.

Even if it could, in some sense, be said that the utilities, by not procuring private rights-of-way, had entered into the business of providing utility service with the understanding that they would be required to relocate without reimbursement, that "understanding" surely did not contemplate relocation on the scale now required. The outpouring of federal grant money has induced states and municipalities to undertake enormous projects serving _federal_ policies and meeting _federal_ requirements. Neither the utilities, nor the municipalities or states which, at the time of granting franchises, desired to keep the cost of utility services low and the cost of entry into the field relatively small, could have realized the enormity of the yearly relocation expense which _federal_ involvement in public works projects now causes.

In any event, the immediate question is who should now equitably bear the real cost of gas utility relocation -- the natural gas consumer, paying both federal taxes and higher gas utility rates, or the general public, through funds which congress has set aside to finance these projects.

CONCLUSION AND RECOMMENDATION

There is no question that Brooklyn Union customers are presently bearing a disproportionate share of the costs of the EPA-assisted Red Hook and Oakwood Beach water pollution control projects by paying for the cost of relocating gas utility facilities in order to accommodate construction on these projects. When completed the projects will have cost the customers of Brooklyn Union approximately $15.750 million. This inequitable situation can, and should, be changed.

Last year the House of Representatives addressed this inequity by adding § 33 to the Water Quality Renewal Act of 1984 (H.R. 3282). H.R. 3282 passed in the House but its counterpart in the Senate failed to pass. Had Congress enacted H.R. 3282, § 33 would have directed the EPA Administrator to reimburse, at the statutorily applicable federal share, the gas utility relocation costs incurred in connection with the EPA-funded Red Hook and Oakwood Beach wastewater treatment projects. This provision was included in H.R. 8 -- the Water Quality Renewal Act of 1985. It is now designated as § 34, and I respectfully urge you to retain it.

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INTERSTATE CONFERENCE
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ON WATER PROBLEMS

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May 17, 1985

The Honorable Robert Roe
Chairman, Subcommittee on Water Resources
House Committee on Public Works and
Transportation
U.S. House of Representatives
Washington, D.C. 20505

Dear Congressman Roe:

Re: H.R. 8 and H.R. 1509

The Interstate Conference on Water Problems (ICWP) appreciates the opportunity to submit the accompanying comments to the Subcommittee on behalf of its members. ICWP is hopeful that inclusion of the organization's comments in the official hearing record will prove helpful to the House in passing legislation to reauthorize the Clean Water Act during the 1st session of the 99th Congress.

ICWP is the independent national association of state, interstate, and regional water administrators concerned with water quantity and quality management, conservation, and development. The association strives to facilitate cooperation and exchange of information among water resources officials and agencies with respect to conservation, use, development, and administration of water and related land resources, the laws governing these matters, and federal-state relationships. ICWP seeks to promote a consensus view on important issues relating to improved water management and to present those views both to the Congress and federal administrative agencies.

ICWP comments on H.R. 8 and H.R. 1509 are intended to provide the Subcommittee with information on (a) the construction grants program, (b) nonpoint source pollution control proposals, and (c) other general provisions. ICWP has already reviewed S. 53 and S. 652 and provided comments to Senator John Chafee.

Again, ICWP appreciates the opportunity to provide written testimony on this important national issue. Please feel entirely free to contact R. Timothy Weston (717/783-5338), ICWP Chairman, or me if you should wish to discuss ICWP's submission or require further information.

Sincerely,

Joan M. Kovalic

Joan M. Kovalic
Executive Director and
General Counsel

Enclosure

cc: The Honorable Arlan Strangeland
The Honorable James J. Howard
The Honorable Gene Snyder
Joseph A. Italiano, Editor (hand-delivered)
Errol L. Tyler, Counsel (hand-delivered)
John Doyle, Assistant Counsel

COMMENTS OF THE
INTERSTATE CONFERENCE OF WATER PROBLEMS
ON H.R. 8 AND H.R. 1509

• Construction of Publicly-Owned Treatment Works

Comment 1. The Interstate Conference on Water Problems (ICWP) fully supports the five-year extension of the Construction Grants Program proposed by Section 3 of H.R. 8 and H.R. 1509. In conjunction with the five-year extension and gradual transition phase-out of the Construction Grants Program, ICWP supports continued program funding of at least $2.4 billion annually through 1990.

Comment 2. ICWP maintains its support for full continuation of the Section 205(g) state administration program as the most effective approach to realizing Title II municipal construction objectives. ICWP specifically supports the Section 205(g)(1) extension to 1989 proposed by Section 16 of H.R. 1509.

Comment 3. Establishment of a balanced and fair national approach to address differing regional water quality management needs remains a fundamental issue with the states that comprise ICWP's membership. Two examples, reserve capacity and combined sewer overflows, serve to illustrate the need for the reauthorized Clean Water Act to provide sufficient flexibility to allow principal contributions to water quality problems to be addressed by the states. In the case of states with stable or slightly growing populations and economic bases, funding reserve capacity may not be a critical issue. However, in areas of rapid and continuing growth, the ability to provide new service for expanded loadings is a key variable in attaining and maintaining water quality standards. For certain states, the correction of combined sewer overflow (CSO) problems may represent an extremely cost-effective pollution abatement investment. Accordingly, ICWP encourages the Congress to provide the maximum degree of program flexibility and address both issues in conjunction with reauthorization. ICWP believes that flexibility is essential to ensure that variable water quality problems are satisfactorily addressed.

Comment 4. ICWP generally supports the establishment of State Revolving Funds (SRFs) as one means of assisting states and local units of government obtain capital for water quality improvement investments. At the same time, ICWP has several concerns about the program as proposed in both the House and Senate bills. First, ICWP is concerned that the mandatory program may not allow the state to obtain maximum leverage from local funds. Second, ICWP believes that the capitalization program should be flexible enough to allow assistance to be used for state-determined water pollution control projects and priorities. For example, the control of nonpoint source pollution through fund utilization may, in some states, represent a much more effective investment than POTW construction. Also, states should have the flexibility to fund a particular project or an aspect of a project so that maximum benefit can be obtained from the limited assistance available. Third, ICWP is concerned that the SRF provisions in both the House and Senate bills contain no limitation on the period of federal direction and oversight. At a minimum, ICWP believes that the fund should be open for uses other than POTW construction after initial repayment of principal and interest has been made. Ideally, the loan fund should be flexible enough to allow the states to control water pollution through a self-determined combination of desirable point and nonpoint source project investments. Fourth, ICWP favors the 85-15 percent requirement in the S. 562, rather than the 80-20 percent proposal in the House bills. Since access to capital is already a fundamental barrier to effective involvement, an increase to twenty (20) percent cost-sharing may entirely preclude some states from participating in the SRF program. Fifth, ICWP is concerned that the certification requirement in Section 18 of H.R. 8 and Section 17 of H.R. 1509, specifically Section 220(b)(2), not be misinterpreted. While a state could certify that plants constructed with SRF assistance will be designed, constructed, operated, and maintained in a manner to meet required water quality standards and effluent limitations, any number of uncontrollable events may prevent an individual facility discharge from achieving standards. In certain cases, compliance assurance (surveillance and enforcement), operator training, and technical assistance activities will need to be conducted to promote standards attainment. ICWP recommends that the certification language be revised to properly recognize the entire range of components available and necessary to promote standards attainment. Finally, ICWP believes that the SRF authorization period should correspond to that of the construction grants program.

Comment 5. ICWP supports S. 652 language providing state discretion in reprogramming Title II Construction Grant assistance to the SRF. However, ICWP believes that the mixture of loan and grant assistance for project aspects or individual projects should be left to the states and not set by federal law.

Comment 6. ICWP formally opposes the mandatory pass-through of fifty (50) percent of Section 205(j) funding to regional and local entities as proposed in Section 16 of H.R. 1509 and Section 17 of H.R. 8. Alternately, ICWP does support permissive pass-through language. Most states already make considerable use of and employ through subcontract local and regional entities to carry out water quality planning activities. The states are fully capable of identifying and utilizing non-state governmental services when they represent the logical choice to conduct necessary work. The simple commitment of fifty (50) percent of limited 205(j) funding, as proposed in the House bills, contains no provision to ensure that priority water pollution control problems, as identified by the state, are addressed.

Comment 7. While ICWP is generally supportive of increasing the federal cost-share to 65 percent for the Construction Grants Program, the organization does not believe that the revision will result in a substantial change in Title II program participation. If nominal and effective cost-sharing rates are compared, the proposed ten percent addition will only result in a very small increase in federal funds actually available for project completion. ICWP believes that a principal issue to be addressed, before matching percentages can be satisfactorily established, is local capital formation or access to capital availability.

• Nonpoint Source (NPS) Pollution Control

Comment 1. ICWP supports the establishment of a nationally effective implementation program to control nonpoint sources of pollution. ICWP is concerned, however, that the language proposed in Section 9 of H.R. 8 and H.R. 1509 lacks an expression of clear and effective goals. If NPS policy goals are to be more fully developed and explained in subsequent administrative regulations implementing the proposed section, ICWP strongly recommends that a specific provision allowing state participation in regulation development be included in statutory law.

Comment 2. Many water pollution control agencies now operate various state-authorized administrative, technical, and financial assistance programs to reduce and abate nonpoint pollution sources. In addition, states frequently participate in the development and selection of federal program priorities that help to control, directly or indirectly, nonpoint source loadings. In formulating a national NPS implementation program, ICWP encourages the Congress to recognize the existence of state programs and ensure that new statutory requirements not pre-empt or disrupt on-going state NPS control initiatives.

Comment 3. ICWP supports the NPS consistency provisions for federal activities contained in H.R. 8 and H.R. 1509.

Comment 4. ICWP's member states support utilizing local agencies or organizations in developing and implementing NPS control programs. However, ICWP recommends that the Section 319(b)(5) language in Section 8 be revised to make it clearly permissive.

Comment 5. ICWP does not believe that the levels of funding authorized under either the House or Senate bills are adequate to initiate an effective nonpoint source pollution control program. Furthermore, ICWP is concerned that the base level of activity requirement may be exceedingly difficult to implement. As written, "all other sources for programs" could be interpreted to include USDA and USDOI programs. Since level of funding is highly subject to and a function of the federal budgetary process, the states are reluctant to agree to maintain "aggregate expenditures". The states are also concerned that programs which may only have a secondary or incidental NPS control benefit not be considered as a part of the base level of activity or expenditures.

Comment 6. ICWP is fundamentally opposed to the Section 319(i)(7) requirement in Section 8 that gives, beginning in 1986, grant priority to states with regulatory programs. ICWP believes that it is unfair to penalize states that have developed effective voluntary programs, which in many cases are as successful in reducing NPS loadings as those achieved under a regulatory framework. Further, establishing a priority for the type of control program approach chosen by a state may bear little relevance to the nature and severity of each state's NPS problems. ICWP recommends that, if Congress believes a priority section to be necessary, it be rewritten to provide a priority for actually reducing a relative percentage of NPS contributions and not merely the administrative approach selected for use.

Comment 7. While ICWP is fully supportive of national efforts to prevent groundwater contamination by both point and nonpoint pollution sources, the organization strongly believes that the goal of groundwater quality protection could be better realized if groundwater quality protection programs and initiatives were consolidated into a separate statute. ICWP, therefore, recommends that the groundwater protection activities contained in Section 8 of H.R. 1509 [319(j)] and Sections 42, 55, and 61 of H.R. 8 be removed from the Clean Water Act reauthorization bills and, instead, be consolidated with bills like H.R. 360 and considered separately.

- General Reauthorization Issues

Comment 1. ICWP supports extending the authorization period for the Section 106 state water pollution control administration program through 1989 at an annual funding level of $75.0 million as proposed by Section 2 of H.R. 1509. ICWP further believes it important to ensure that the congressionally authorized level of funding is fully appropriated each year.

Comment 2. ICWP supports partial delegation of the National Pollutant Discharge Elimination System (NPDES) as proposed in Section 25 of H.R. 1509 and the anti-backsliding provision presented in Section 26 of H.R. 1509.

Comment 3. ICWP generally supports the dispute resolution and coordination concepts established for estuaries, nonpoint source problems, and Great Lakes issues in H.R. 8 and H.R. 1509. However, ICWP recommends that the House bills acknowledge the existence and promote the use of previously established interstate institutions and authorities, such as interagency councils, river basin commissions, and compacts, wherever practical. ICWP believes that existing institutional coordination forums should be used to resolve conflicting issues before EPA is asked to convene a management conference. ICWP does not believe that enactment of the new sections should, in any way, be construed as limiting the ability of any state to seek relief through the judicial process.

Comment 4. ICWP generally supports the proposed revisions to the criminal and civil penalty provisions contained in the House Clean Water Act, as well as the granting of administrative penalty assessment authority to the Administrator. ICWP fully endorses the explicit language in Section 6 of H.R. 1509 which indicates that state civil penalties need not match federal amounts.

Comment 5. ICWP generally supports the establishment of the revised compliance dates proposed in Section 4 of H.R. 8 and H.R. 1509. However, ICWP encourages the Congress to recognize that adjusting or moving deadlines can have the undesirable effect of frustrating ongoing state compliance programs and initiatives. Also, ICWP supports the BAT variance prohibition proposed by Section 8 of S. 652 and the indirect conventional pollutant discharge provisions in Section 107 of S. 53.

Comment 6. ICWP supports continued funding of the General Administration, Clean Lakes, Training and Education, and Research and Development programs, as provided for in Section 2 of H.R. 8 and H.R. 1509.

Comment 7. ICWP's general support for H.R. 8 and H.R. 1509 is partially predicated on the exclusion of several reauthorization provisions contained in the House bills. Specifically, ICWP does not find any need for and, therefore, cannot support creation of a National Groundwater Commission, a study of dams as point sources of pollution, and a mandatory requirement to pass through water quality management planning assistance.

Comment 8. ICWP strongly supports the need to establish a nationally consistent program to protect groundwater from contamination. However, ICWP does not believe that Clean Water Act reauthorization legislation is the proper focus for addressing groundwater quality programs. In fact, inclusion of groundwater quality protection provisions in the Clean Water Act may have the unwanted effect of promoting further fragmentation of already uncoordinated groundwater quality maintenance programs. ICWP recommends, therefore, that the groundwater quality protection provisions contained in H.R. 8 and H.R. 1509 be addressed in separate legislation confined to the issue of groundwater quality management.

Comment 9. ICWP has some concern about the effect of the coal remining provisions in Sections 20 and 47 of H.R. 8 and H.R. 1509, respectively. While ICWP understands and agrees with the intent of the Section, the organization also recognizes a possibility for misunderstanding. ICWP encourages the Subcommittee to reword the Section to require, in all cases, that maximum abatement of pre-existing discharges be achieved. ICWP believes that this objective can best be realized through the development of an implementable abatement plan.

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Congress of the United States
House of Representatives
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June 17, 1985

Hon. James J. Howard
Chairman
Committee on Public Works and Transportation
2165 Rayburn HOB
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Dear Mr. Chairman:

I would appreciate your making the enclosed statement a part of the record of hearings on H.R. 8, the Water Quality Renewal Act of 1985.

As a Member representing an area where water resources are of critical importance, the renewal of the Clean Water Act and the inclusion of a national bay and estuary program are vital. I am grateful for the opportunity to add to this discussion.

Thank you for your assistance. I remain,

Sincerely,

Connie

Connie Mack

CM/pb

STATEMENT OF

THE HONORABLE CONNIE MACK

MEMBER OF CONGRESS

ON H.R.8

THE WATER QUALITY RENEWAL ACT OF 1985

BEFORE THE

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.

Statement of the Honorable Connie Mack, Member of Congress, on H.R. 8, the Water Quality Renewal Act of 1985, before the Committee on Public Works and Transportation, House of Representatives, Washington D.C.

I am pleased to have this opportunity to discuss the importance of H.R. 8 to my District as well as to Florida and the nation.

The City of Sarasota, which is part of the Thirteenth District of Florida, first undertook its responsibilities to clean up Sarasota Bay approximately 20 years ago. It initiated a planning effort originally aimed at upgrading its sewage effluent discharge to the Bay. The long term pollution of the Bay has resulted in a slow but serious degradation of water quality including destruction of sea grasses and threats to fishing and tourism.

Many years and several hundred thousand dollars later, the City's plan for secondary sewage treatment has been completed and approved by the State of Florida and EPA. The City has, in part with EPA assistance, initiated substantial construction of treatment plant improvements. Funding for completion of advanced sewage treatment construction has been pending approval by EPA for 5 years. The proposed project will provide advanced treatment by spray irrigation with drainage to a nearby slough. This process will recoup some costs through the sale of wastewater, and, more importantly, will achieve Congressional objectives for elimination of discharge and water reuse expressed in Sections 101 and 201 of the Clean Water Act.

While lengthy, the planning process has none-the-less resulted in a cost effective solution which will eliminate further municipal sewage discharge to the Bay. It also identified the need to control non-point pollution from rural and urban sources.

Both elements -- advanced sewage treatment and control of non-point sources -- are necessary to arrest degradation and restore the Bay to that quality which only Sarasota's oldest citizens can remember.

Without non-point controls, the Bay could be further polluted by urban and rural runoff and other pollutants reducing the Bay's transparency and further destroying sea grasses, shell fishing and tourism. Without advanced sewage treatment including the removal of effluent from the Bay, degradation will only be postponed and is likely to become irreversible in another decade. Both are necessary if Sarasota Bay is to be restored.

The City of Sarasota supports reauthorization of the Clean Water Act this year with the inclusion of a national bay and estuary program such as contained in H.R.8, the proposed Water Quality Renewal Act of 1985. This is vitally important to achieving improved water quality in Sarasota Bay. That importance is underscored for two reasons:

First, Sarasota Bay has been nominated to the list of Outstanding Florida Waters. Extension of the Wastewater

Construction Grants Program at not less than $2.4 billion will be important to financing restoration of this unique shallow bay, an important regional and statewide area of critical environmental interest. While the City's treatment project could receive assistance this year, delay in the approval process or cost increases would necessitate further assistance in FY'86 or beyond.

Extension of this program at no less than current funding levels is important to Sarasota and many other Florida cities and counties which are acting in good faith to meet federal treatment requirements and state water quality standards mandated by the Clean Water Act for compliance by the July 1, 1988, deadline.

Second, the Maintenance of Water Quality in Estuarine areas contained in Section 46 of H.R.8 would provide an important institutional mechanism for dealing with all sources of pollution, but especially non-point sources.

The authority contained in Section 46, to bring all public and private interests together to develop and implement pollution control measures, is especially appropriate for establishing non-point source controls and best management practices based on existing data and studies. It further provides the opportunity for coordinating and focusing financial and technical assistance from other federal sources, as well as, those of the state and local governments.

Municipal and county agencies and private interests are already addressing the need to control non-point sources. The City of Sarasota and Sarasota County have an existing working relationship to address nonpoint pollution. There is a recognized need to use existing authorities governing environmental protection, soil erosion, and land management practices, as well as, financial and technical resources to implement effective management practices. Provisions such as Section 46 would serve to coordinate and enhance existing efforts and authorities.

I recommend that Section 46 of H.R.8 be strengthened by:

1. Providing authority to cities, counties and other local agencies and states to initiate the formation of an estuarine and bay management conference as could be established by the EPA Administrator under Subsection 46(a)(1);

2. Making cities, counties and other local management agencies explicitly eligible for financial and technical assistance authorized by Subsections 46 (f) and (g);

3. Since efforts of this type are difficult to initiate, consider the restructuring of grant assistance to provide greater assistance at the beginning, for example: 100% for the first year, 50% for second year, and a phase-out of federal assistance thereafter, conditioned on a minimum five year funding commitment by participating state and local agencies.

4. Sarasota Bay is a unique and important shallow bay and estuarine system which serves as a highly productive habitat for fish and shell fish propagation. It is under

consideration for designation as an Outstanding Florida Water. I would also recommend that it therefore be included in the list of water bodies to receive priority consideration under Subsection 46(a)(1).

These adjustments would recognize the critical and indispensable nature of local public agency leadership to establish effective management practices and the institutional framework for their implementation to save important natural resources contained in bays and estuaries.

STATEMENT FOR THE HEARING RECORD
OF THE
HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE

SUBCOMMITTEE ON WATER RESOURCES
REGARDING
REAUTHORIZATION OF THE CLEAN WATER ACT

APRIL 30, 1985

By
County Sanitation Districts of Orange County,
California

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ORANGE COUNTY SANITATION DISTRICTS (CALIFORNIA) DEEP OCEAN SLUDGE DISPOSAL RESEARCH PROJECT

Research Project Proposal

The Orange County Sanitation Distícts (California) are requesting consideration of legislation to authorize the EPA Administrator to issue a five year research permit to monitor the effects of discharging a limited volume of preconditioned, non-toxic municipal sludge under controlled conditions by pipeline into the deep ocean (1000 feet depth) at a distance of 8 miles offshore in open ocean.

The motivation for discharging sludge to an ocean depth 3 to 4 times deeper than any previous project is to place this material in a location which is farther removed from biologically productive water and more isolated from human interaction. (See Appendix, Goals of the Research Project).

Concept and Study Status

This disposal concept first appeared in the 1980 LA/OMA Project Sludge Management Report, a $3.5 million dollar study for Metropolitan Los Angeles and Orange Counties, as an ocean disposal alternative with the recommendation for in-depth scientific evaluation and further study.

For more than three years, a scientific evaluation study for this concept has been underway at the California Institute of Technology (Cal-Tech) Pasadena funded by Orange County and the National Oceanographic and Atmospheric Administration (NOAA). The research has generated considerable interest in the Congress. In fact, the Conference Report on the 1981 Clean Water Act Amendments stated "...the Research Project conducted by NOAA on sludge from the Orange County Sanitation Districts may continue".

Project Financing

Orange County will put up the $15 million dollar project construction money from revenues from its operations. The $1.0 to $1.5 million annual monitoring costs during the five year project life will also come from Orange County, therefore, no federal funds would be required.

Project Administration

The project would be conducted in a manner acceptable to the EPA Administrator. The project would be administered independently of the Sanitation Districts and will involve NOAA, EPA, the State and Regional Regulatory Agencies, as well as Cal-Tech and the Southern California Coastal Water Research Project (SCCWRP). Thus, the ultimate success or failure of this deep ocean experiment will be judged by the marine scientific community that will evalute the multifaceted experiments conducted by other scientists during the life of this project.

Project Administration (cont'd)

Many of the proposed experiments have never been conducted before, particularly in actual life situations. If the marine monitoring program for this project reveals unacceptable deleterious effects, the discharge to the deep ocean will be terminated immediately.

Research Project Discharge Limitations

Quality - The sludge quality characteristics will be controlled by several feasible wastewater treatment combinations. Characteristics of both the discharged sludge and the initial mixing in the ocean are within the control of the design engineer. Available alternatives, both in the treatment plant and the submarine discharge structure will be examined in terms of their effects on sludge quality, initial mixing, and sludge behavior subsequent to discharge.

In addition to in-plant treatment measures designed to produce a sludge of acceptable quality for marine disposal, the Districts will continue their successful industrial source control enforcement program. (See Appendix, Orange County Sanitation Districts (California) Source Control Program).

Volume - The Deep Ocean Research Permit issued by the EPA Administrator will limit the sludge volume discharge to not more than one half of the Districts' volume. For comparison purposes, the daily experimental discharge in dry volume terms will not exceed the space within an 8' x 8' x 24' cargo container. In other terms, the project's limited solids discharge will be less than the particulate limitations established by EPA for POTW secondary treatment (30-30) discharges of 390 MGD or more to lakes and streams in the United States.

Final Report

The results of all research data and final reports would be made available to the Regulatory Agencies and the Congress.

This project's appeal is that it will provide reliable data to help guide future decisions in dealing with one of the most complex issues in the entire clean water area, namely, the assimilative characteristics of the deep ocean.

Other Sludge Research Projects

During the course of the Deep Ocean Research experiment, Orange County will continue research on at least two land based alternatives suggested in the 1980 LA/OMA Sludge Management Report with special emphasis on remote disposal alternatives and programs for reuse/recycled utilization of sludge. In other words, Orange County, like many other POTW's, is seeking sound scientific data on which to base its selection of the best environmental alternative for sludge management.

Conclusion

It makes a great deal of sense for the Congress to authorize the EPA Administrator to issue a research permit for this well defined project, as no federal funding is required and yet the Congress and EPA will be the beneficiary of the results of the monitoring program and the analysis of the research data. Safe, intelligent use of the ocean for waste disposal will ultimately depend upon mathematical characterization of important oceanographic processes in terms of their effect on waste dispersal and assimilation. This research plan is directed toward that goal, we therefore respectfully request adoption of the following proposed amendment to H.R.8:

"OCEAN DISCHARGE RESEARCH PROJECT

> Notwithstanding any other provision of law, the Administrator is authorized to issue a research permit to the Orange County (California) Sanitation Districts for the discharge of preconditioned municipal sewage sludge into the ocean for the purpose of enabling research to be conducted in assessing and analyzing the effects of disposing of sewage sludge by pipeline into ocean waters, provided that (1) such permit for the discharge of sludge shall be for a period not to exceed five years, (2) that the monitoring of discharges and their impacts shall be in conformance with requirements established by the Administrator, after consultation with appropriate Federal and state agencies, (3) the Administrator is satisfied that such local governmental agency is actively pursuing long-term land based options for the handling of its sludge with special emphasis on remote disposal alternatives set forth in the 1980 LA/OMA Sludge Management Project and on reuse/recycled utilization of sludge, (4) the volume of such local agency's sludge disposed of by such experimental pipeline shall be no more than one and one-half times that being disposed of by such remote disposal and reuse/recycled alternatives referred to above, and in no event shall the agency dispose of more than 50% of its sludge by the pipeline, and (5) results of the monitoring programs and the analyses of such data shall be reported to the Congress within 180 days after the expiration of such permit."

Respectfully submitted,

J. Wayne Sylvester
General Manager

APPENDIX

GOALS OF THE RESEARCH PROJECT

The research project should be designed to clarify aspects of the behavior and effects of the deep sludge discharge and to provide information to make future decisions regarding sludge discharge to the ocean. The specific goals are:

1. To characterize the physical, chemical, and biological properties of the sludge.

2. To recommend:

   ° depth and location of the end of the sludge outfall;

   ° in-plant processing of sludge before discharge; and

   ° possible modifications in industrial waste pretreatment (or source control) programs for trace contaminants.

3. To make pre-discharge predictions of sludge induced environmental impacts. These would include changes in water column oxygen concentrations and benthic sedimentation rates.

4. To observe changes in water column and benthic communities and measure the distribution of important chemicals in the water, in the sediment, and in organisms.

5. To find what human health risks (if any) are associated with deepwater sludge discharge, either directly through human contact with seawater or indirectly through consumption of seafood.

6. To determine the mechanisms by which ecological and chemical changes occur.

7. To assess the predictability of the effect of deep sludge discharge by comparison of model predictions with monitoring data. Effects to be determined from the monitoring program include sedimentation patterns, alteration of biota, and changes in water and sediment chemistry. It is pertinent to ask how well the fate of discharged materials can be accounted for in mass balance analyses.

8. To summarize and recommend methodology for designing systems for sludge discharge into the ocean and predicting the effects.

9. To summarize the effects of the Orange County sludge discharge, and evaluate their significance with respect to marine resources.

LIST OF RESEARCH TASKS

Group I SURVEY FOR DISCHARGE-RELATED EFFECTS

Measurement of Water Quality Characteristics
Water Column Biological Monitoring
Inventory of Local Sport and Commercial Fishing Activities
Trawl Monitoring Program
Benthic Surveys
Age Dating and Chemical Analyses of Sediment Cores by Layers
Measurement of Sedimentation Rate via Sediment Trap Deployment
Bioaccumulation of Trace Contaminants
Designation of Control Sites for Water Column and Sediment Monitoring

Group II SITE CHARACTERISTICS

Measurement of Local Currents
Hydrographic Surveys for Determination of Geostrophic Currents
Site Bathymetry

Group III SLUDGE CHARACTERIZATION

Measurement and Projection of Sludge Quality Parameters
Evaluation of In-Plant Unit Operations Affecting Sludge Characteristics
Measurement of Sludge Particle Size Distribution, Settling Characteristics, and Coagulation Effects
Mobilization of Trace Contaminants within the Water Column

Group IV MODELING

Initial Dilution and Height of Plume Rise
Estimation of Dissolved Oxygen Concentrations
Estimation of Particulate and Trace Contaminant Fluxes to Local Sediments
Sediment Concentrations of Dissolved Oxygen and Sludge-Related Contaminants
Biological Models

Group V PRELIMINARY DESIGN

Evaluation of In-Plant Design Alternatives
Selection of Discharge Site and Submarine Pipeline Technology

List of Research Tasks
Page two

Group VI BIOLOGICAL IMPACTS -- LABORATORY STUDIES

Effect of Sludge Particles and Organics on Zooplankton Feeding
Dependence of Zooplankton Respiration on Ambient O_2 concentration
Microbial Decomposition of Water Column Organics
Sea Urchin Toxicology -- Lab Study

Group VII BIOLOGICAL IMPACTS --IN SITU STUDIES

Benthic Oxygen Consumption
Rates of Particle Ingestion by Macrobethos
Effect of Sludge Particulates on the Feeding Habits of Marine
    Fauna -- Baited Camera Experiments
Field Observation of Zooplankton Feeding in the Presence of Sludge
    Constituents
Other Biological Experiments

Group VIII SPECIAL STUDIES

Identification of Sludge Tracers
Remote Tracking of Wastefield
Extrapolation from Hyperion Sludge Disposal Experience
Assessment of Potential Public Health Impacts

Group IX INTEGRATION, ANALYSIS AND INTERPRETATION

Analysis and Interpretation of Survey Data
Comparison of Model Predictions with Observations
Effects of Organic Enrichment on the Dynamics of Midwater Plankton
    Communities
Revision of the Research Plan
Annual Summaries of Project Results, Conclusions and Recommendations

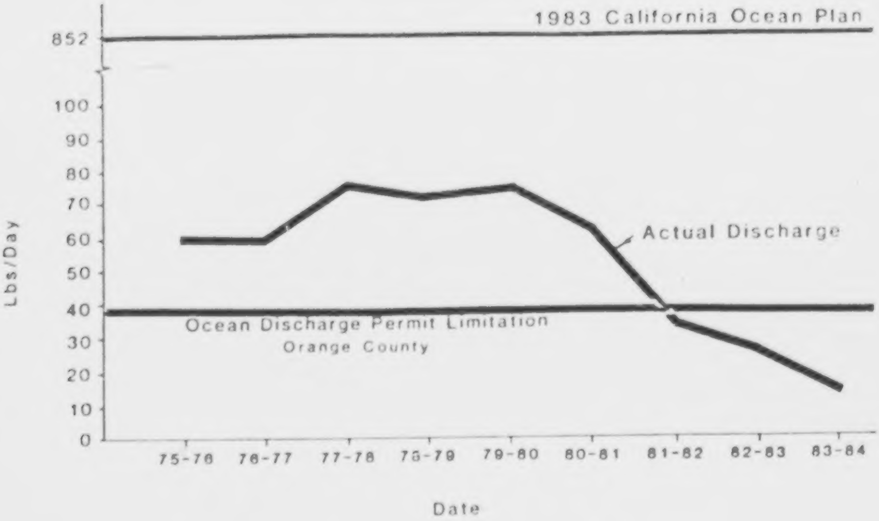
COUNTY SANITATION DISTRICTS
OF
ORANGE COUNTY, CALIFORNIA

INDUSTRIAL DISCHARGE LIMITS, mg/l
(Source Control Program)

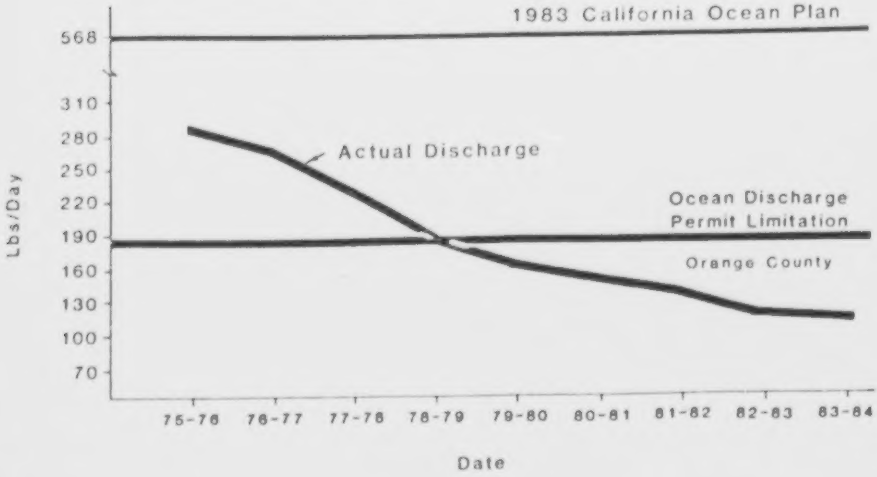
CONSTITUENT	EFFECTIVE July 1, 1976	EFFECTIVE July 1, 1978	EFFECTIVE July 1, 1983	EFFECTIVE April 27, 1984
Arsenic	2.0	2.0	2.0	2.0
Cadmium	5.0	3.0	1.0	1.0
Chromium (total)	6.0	2.0	2.0	2.0
Copper	10.0	4.0	3.0	3.0
Lead	2.0	2.0	2.0	0.6*
Mercury	0.03	0.03	0.03	0.03
Nickel	10.0	10.0	10.0	4.1*
Silver	5.0	5.0	5.0	1.2*
Zinc	15.0	10.0	10.0	4.2*
Cyanide (total)	10.0	5.0	5.0	1.9*
Cyanide (free)[1]	1.0	1.0	1.0	1.0
PCB's & Pesticides			0.02	0.02
Total Toxic Organics (as defined by EPA)			0.58	0.58
Total Sulfide			5.0	5.0
Dissolved Sulfide			0.5	0.5
Oil and grease of mineral, petroleum origin			100.0	100.0

* Environmental Protection Agency categorical standards for metal finishers. One day maximum limits.

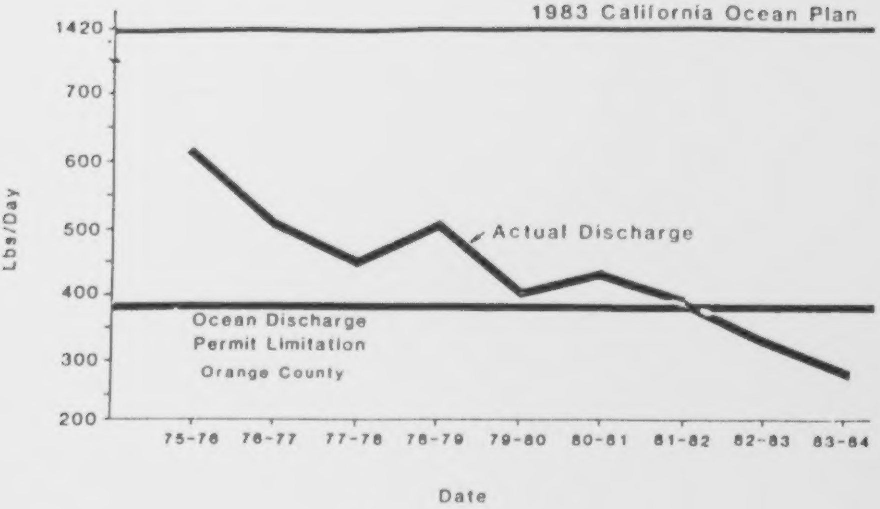
[1] The term "free cyanide" shall mean those cyanides amendable to chlorination as described in the Annual Book of ASTM Standards, 1972, Standard D 2036-72 Method B., page 553.



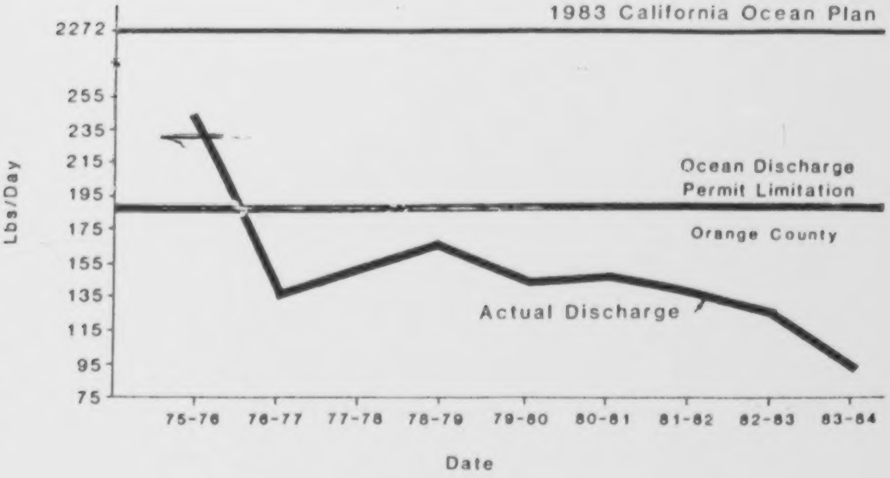
Effluent Cadmium



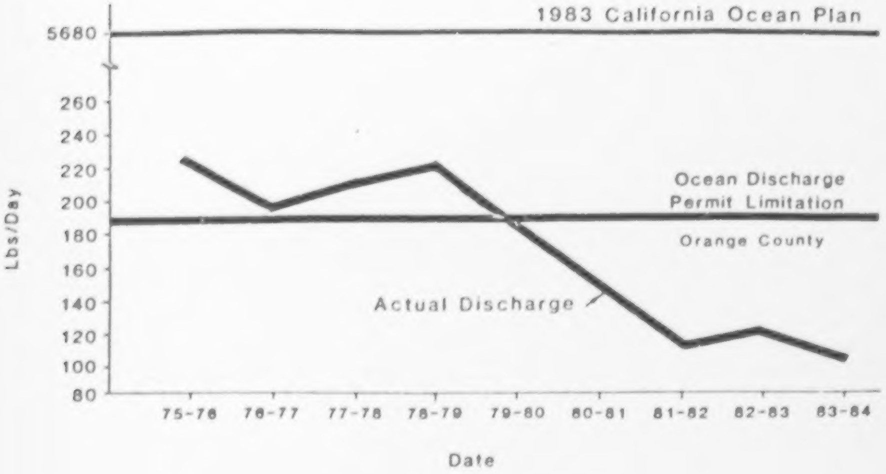
Effluent Chromium



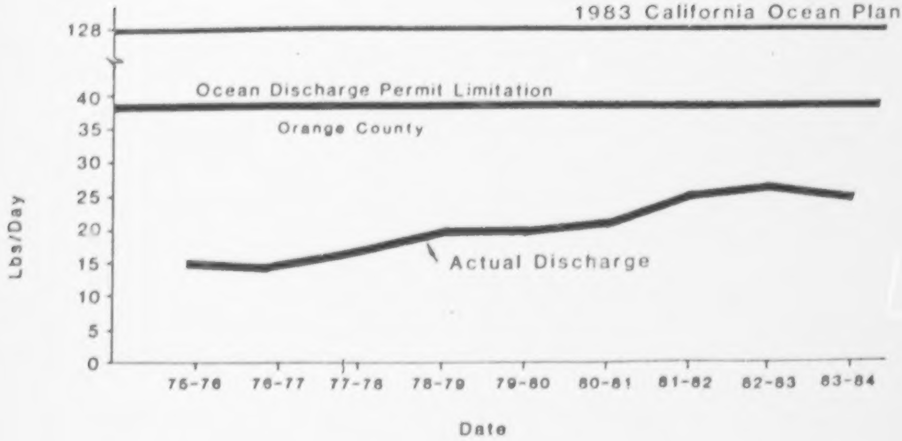
Effluent Copper



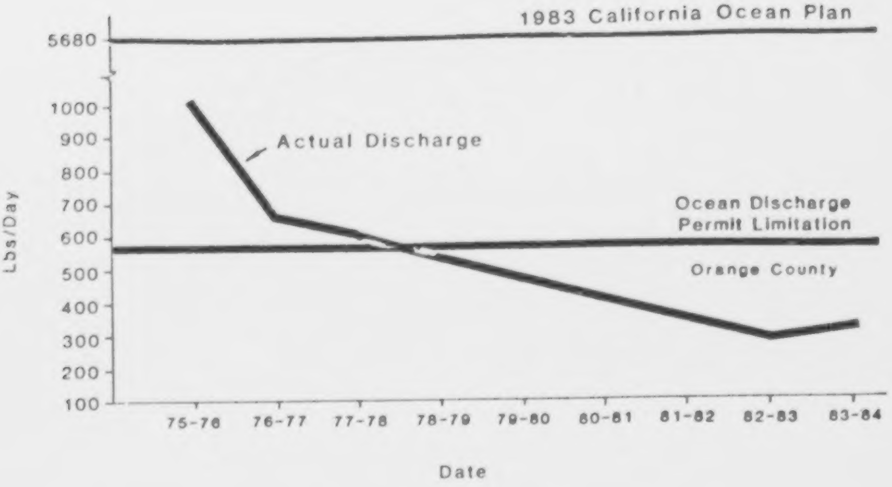
Effluent Lead



Effluent Nickel



Effluent Silver



Effluent Zinc

UNITED STATES CONFERENCE OF MAYORS
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STATEMENT OF
THE U.S. CONFERENCE OF MAYORS

on

REAUTHORIZATION OF THE CLEAN WATER ACT

Before the

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

April 30, 1985

Mr. Chairman and members of the Subcommittee, the U.S. Conference of Mayors appreciates the opportunity to present its views to you as you undertake reauthorization of the Clean Water Act. The Conference applauds the leadership this subcommittee has shown in addressing the water concerns of the nation's cities and has outlined brief comments below concerning priority issues for cities during forthcoming Clean Water deliberations.

The principal focus of our remarks is H.R. 8, the Water Quality Renewal Act of 1985. This proposed legislation provides an excellent approach to meeting the nation's clean water responsibilities in a comprehensive fashion. It properly combines the need for strong environmental standards with a fiscal partnership to meet those standards in a reasonable time period.

The Conference is pleased that H.R. 8 dismisses the proposal of the Administration to phase out the wastewater treatment construction grants program with a 25 percent cut in each of the next four years. As EPA's Needs Survey and numerous other documents and studies of the nation's infrastructure have shown, there is much work to be done in cleaning up the nation's water before the federal role should end.

Following the Administration's initial submission of the FY86 budget, the U.S. Conference of Mayors undertook a survey of 157 cities on the impact of the proposed budget cuts.

That survey indicates that:

- 36 percent of surveyed cities could not complete existing projects in four years if the wastewater treatment program was phased out;
- 60 percent would be required to resort to significant tax increases or user fees increases to meet wastewater obligations -- almost half of the cities in the survey are under some mandate to finish projects or construct new ones;
- 43 percent of these cities predicted tax increases of at least 25%;
- Impacts on housing, community development, economic development, jobs and environmental quality are predicted if needs are not met;
- Only four percent predict state help in this area.

The complete text of the Wastewater Treatment section of this survey is attached for your review.

The wastewater authorization levels in H.R. 8 of $3.4 billion for fiscal years 1986-88 are realistic to set the wastewater treatment program on the path to successful completion. The U.S. Conference of Mayors recently adopted policy calling for a one-year freeze on all non-means tested entitlements. Thus, we suggest that the FY85 appropriations level of $2.4 billion be retained in FY86 with growth from authorizations increases being permitted to occur in the out-years.

With respect to the provision of $1.6 billion annual for states to establish wastewater treatment loan programs, we believe that additional language needs to be adopted by the subcommittee to ensure that during the appropriations process there is no competition between the existing grant program and the new loan program. In addition, there should also be assurances that in implementation of the loan program, both EPA and the states continue to make grants available to projects that are underway with grants or based on grants being available. We suggest amendments which state that:

- grants must be available to projects already underway, unless a community specifically chooses an alternative financing approach under a state loan program ($6 billion is EPA's estimate of the federal grant contribution necessary to complete this category of projects);

- grants must be made available to projects ready to go to construction, unless a community chooses otherwise, if the affected community/system is operating under a consent decree or administrative order;

The Conference also strongly concurs with the provision of H.R. 8 raising the federal share of projects to 65 percent from the current level of 55 percent imposed during 1981 amendments.

H.R. 8 takes important steps towards dealing with the pressing problem of non-point pollution, which represents a significant obstacle to meeting clean water goals. Providing $150 million per year to the states for developing non-point pollution plans is commendable. As Mayor Henry Maier of Milwaukee stated in his testimony to the Committee on behalf of the Conference last year, "In my opinion, the best way to assure that non-point improvements are made commensurate with point source efforts is to require that non-point efforts be carried out on a mandatory basis by the states.

while recognizing the technological and institutional improvements necessary to implement non-point source control are in many ways more complicated -- though costing far less dollars -- than point source controls, I firmly believe that mandatory efforts will be necessary to protect the massive investment by the public and private sectors in meeting water quality requirements and in achieving the secondary treatment request of the law". States should be required to take measures to reduce agricultural, mining and silviculture non-point and the capital resources to meet renovation needs at the urban level must be provided.

Thank you for the opportunity to present the views of the U.S. Conference of Mayors. We look forward to working with the Subcommittee towards successful reauthorization of the Clean Water Act.

THE IMPACT on AMERICA'S CITIES of the ADMINISTRATION'S FEDERAL BUDGET for FISCAL YEAR 1986

MARCH 1985

United States Conference of Mayors

WASTEWATER TREATMENT

Vastly increased local taxes and user fees, and threats to housing, community and economic development, jobs and environmental quality are anticipated in cities should the Administration's wastewater treatment proposal be enacted. The Administration proposes to phase out the $2.4 billion dollar wastewater treatment construction grants program over four years, ending eligibility now for new projects. The wastewater program, cut in half in FY81, helps cities meet federal standards under the Clean Water Act.

In most cases, metropolitan sewerage agencies, rather than the cities themselves, build and operate wastewater treatment plants. However, some 72 percent of those cities responding to the survey were able to give detailed information regarding the impact of the Administration's proposal.

Prospects for Completion of Projects

Of those cities, almost 36 percent would be unable to complete existing projects in four years if the budget proposal is enacted. With no federal assistance remaining, many cities across the nation would be left with unfinished wastewater treatment plants.

Court Orders and Decrees

Although federal funding may expire, to comply with 1988 clean water standards, many cities must finish existing plants or construct new plants because of judicial consent decrees, administrative orders or other binding contractual agreements. Of those cities providing wastewater information, 49 percent are in this category.

Tax/User Fee Increases

A clear majority of cities responding will not be able to meet their wastewater obligations without a significant increase in taxes or user fees. Indeed, 60 percent would be required to resort to significant tax increases or user fee increases to meet this obligation. The range of this local tax increase or user fee increase is difficult for most cities to currently estimate. However, some 43 percent are prepared to estimate the increases now as the figures below indicate:

Tax User Fee Increases to Meet Wastewater Needs

Percentage Increase	Percentage of Cities Predicting Increases
1-25%	57.1%
26-50%	22.4%
51-75%	2.0%
76-100%	8.2%
100%-Above	10.2%

Thus, almost 43 percent of these cities predict tax or user fee increases of more than 25% to meet wastewater needs.

Impacts of Inability to Meet Needs

If cities cannot complete existing projects or construct new projects, this will have significant effects on housing, community development, economic development, jobs and environment quality. Wastewater treatment capacity is an essential element to achieving each of these key urban goals.

Not all cities can now provide information in this area. But of those providing wastewater information, 65 percent did provide information on the nature of these impacts. That information is summarized in the figures below.

Impact of Inability to Meet Wastewater Needs

Areas of Impact	Percentage of Cities Predicting this Impact
Housing	63.5%
Community Development	68.9%
Economic Development	77.0%
Jobs	68.9%
Environmental Quality	94.6%

Virtually all cities in this category reported multiple impacts from a failure to meet wastewater needs.

State Aid

Although funding for wastewater treatment is passed by the federal government to cities through state governments, less then four percent of cities providing wastewater information anticipate increased aid from states in this area.

Western Regional Council

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May 17, 1985

The Honorable James J. Howard, Chairman
Committee on Public Works and Transportation
2165 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Howard:

The Clean Water Act is presently being considered for reauthorization, and the Western Regional Council would appreciate your review of problems that currently exist in the water quality standards program of the Clean Water Act.

For the past three years, the Western Regional Council has testified on the issue of water quality standards and the somewhat unique and very significant impact these standards are having on western businesses and, more recently, municipalities. Due to the wide fluctuations in stream flows in the West, and due to EPA's restrictive policies under the Act, the requirements have become so inflexible that unique western water conditions cannot be accommodated.

Not only is the present situation limiting states and communities from making decisions that affect their local economy, but it is resulting in the "consumptive use" of the water to avoid the high treatment costs involved. In Colorado in particular, approximately 72 communities and numerous businesses are facing significant costs in order to protect specific standards that are established well beyond what is necessary to protect public health and where no discernible benefit is achieved. Clearly in the West, the efficient and wise use of our water resources has been a premise on which our state water laws are based and is one we cannot afford to abandon.

Enclosed is our summary and our full statement for the Committee's hearing record. It suggests that clarifying changes be made to the Clean Water Act that preserve the integrity of the existing water quality program but provide the flexibility in implementation which is required for sound water management in the West.

Sincerely,

David W. Delcour jls
David W. Delcour, Chairman
Clean Water ad hoc Committee

jls
Enclosure

SUMMARY STATEMENT
OF THE
WESTERN REGIONAL COUNCIL

HEARING ON H.R. 8

SUBCOMMITTEE ON WATER RESOURCES

HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

APRIL 30, 1985

The Western Regional Council appreciates the opportunity to submit this testimony on the Clean Water Act. Our organization represents business interests in the Western states.

The efficient management of water is of enormous importance in Colorado and in the Intermountain West. This part of the country is arid. To a much greater extent than in the East, or on the West Coast, the growth of our agriculture, our cities, and our industry has depended upon the careful development and efficient use of our scarce water resources. No less will be required in the future.

Enclosed is more detailed testimony that addresses three issues: state water rights vs. zero discharge goals; stormwater runoff; and water quality standards. This summary, however, addresses EPA's use of water quality standards, and the effect they have on western water users.

The WRC has a problem with the way that EPA implements the Act.

1. First, we agree wholeheartedly that water quality standards must protect public health.

2. Second, we agree that there is a need to protect aquatic life, and that it would be desirable to protect sensitive species in all stream segments.

3. However, we do not believe that states should be required, as a matter of federal law, to protect the most sensitive aquatic life in all stream segments--not, at least, when this level of protection will require water users to spend enormous sums of money to treat their discharges well beyond secondary, or beyond BAT.

In such circumstances, states need more discretion than they currently possess to decide if the benefits of extra treatment are worth the expense. As the statute is presently implemented, water quality standards cannot be adjusted downward, ever, for the sole reason that the benefits are not worth the cost.

In some cases, this restriction can result in treatment requirements than I can only characterize as wasteful. In other cases, to avoid such requirements, permittees are electing to eliminate their discharges by adopting forms of treatment that are 100% consumptive. They are drying up the stream in the name of protecting it.

Specific examples are cited in the longer statement. The problem is severe in the West, and it is growing. In this part of the country streamflows tend to be highly seasonal; they are very low for much of the year. Furthermore, because the region is arid, large amounts of water are often diverted out of streams so that the water can be put to beneficial use. The effect is that individual discharges often constitute the entire flow of the stream near the outfall. In contrast to wetter parts of the country, there is little or no water in the stream to dilute the effect of the discharge.

Let me reemphasize that the WRC is not asking you to relax the uniform, nationwide technology-based treatment standards. Nor are we asking that you compromise standards that are designed to protect public health. All we ask is that you give states the discretion to decide how hard, and how quickly to push beyond this in the management of their water resources.

PURPOSE OF SEC. 302 AMENDMENT

Amendments to Section 302 are necessary to make it available for occasional use in states, primarily in the West, where instream flows are continuously or periodically low. When water quality standards adopted pursuant to Section 303 will result in the imposition of advanced waste treatment, but little tangible benefit will be achieved in protecting the most sensitive fish or macroinvertibrate species, then an evaluation of the cost for the benefit should be allowed before the permit becomes effective. This is particularly true when municipalities are ineligible to receive AWT construction grants under the Congressional advanced waste treatment funding policy, which provides that no funding may be made when no tangible benefit is expected from the extra treatment.

Without this amendment, unfunded municipalities will often have to pay the cost of protecting water quality standards themselves. This cost can become very onerous as effluent limits in the NPDES permit begin to approach concentration levels prescribed by water quality standards. The effluent limits in the permit begin to approach these standards when discharges to the stream are greater than low flow levels of the stream, and when there is no mixing zone because of low flows and the narrow width of the stream. The cost for such treatment can be particularly difficult to justify when water treated for protecting a fishery is entirely diverted for agricultural or other use a short distance below the point of discharge, even if there are fish present (or capable of being present) when no diversions are occuring because of the discharge of effluent to an otherwise dry streambed.

A modification in the permit should be authorized by the permit authority after public hearing, upon a showing that necessary and stringent criteria justifying the modification have been met. Upon application of a modification, the permit authority might also seek a rulemaking hearing to review and revise the underlying classification or criteria causing the need for AWT, as allowed by water quality standards regulations. But where such hearing is unncecessary , or results in the continuing need for AWT, then the modification should be issued if the criteria are met. The modification should be conditioned with appropriate requirements to protect the use of the stream, such as a requirement to conduct new wasteload allocation studies prior to the next permit reissuance, to determine more appropriate distribution of costs and benefits among various dischargers to the streams. The modification would expire with the permit reissuance, subject to new public hearing and authorization.

SECTION 302 AMENDMENT
SECTION BY SECTION ANAYLSIS

1. The amendment modifies Section 301(b)(1)(C) in two major respects. First, it provides for a three-year grace period for compliance with new or modified water quality standards; a grace period that is allowed for almost all other permits such as BAT when new technology is required. This subsection is also relocated and the reference to state standards and limitations is deleted. This change is simply a drafting change that makes the Section easier to read. The change does not affect the meaning of Section 301.

2. The second amendment modifies Section 302(a) in three respects. First, it grants state administrators the authority to exercise powers provided by this section. Second, it makes it clear that the section can be used to impose (or modify) effluent limitations necessary to protect water quality standards. Third, it further clarifies that "variances or modifications" can only occur as to effluent limitations designed to protect shellfish, fish and wildlife. The existing statute does not require the protection of other uses of water, i.e. public health, and this proposed amendment change in Sec. 302(b) makes it clear that these uses still have to be protected.

3. The third amendment, which modifies Sec. 302(b), specifies the criteria on which a modification can be granted; criteria that reflect western streamflow conditions and other limiting factors on a permittees ability to meet the standards. These criteria include:

   - protection of public health, public drinking water supplies, and any agricultural, recreational or industrial uses;

   - the stream flow is low at certain times of the year due to natural conditions or the regulation of flow as a result of state water quantity laws;

   - there is no reasonable relationsip between the economic, social, and environmental costs and benefits to be obtained.

4. The final amendment simply conforms Section 302(c) to the above changes.

PROPOSED AMENDMENTS TO THE CLEAN WATER ACT

1. Amend Section 301 of the Clean Water Act by deleting subsection (b)(1)(C) in its entirety, by deleting the "or" at the end of subsection (b)(1)(B), and by adding a new paragraph following subsection (b)(2)(B) to read as follows:

   > "(3) Not later than July 1, 1977, or three years after adoption of the standard, whichever is later, and subject to the provisions of Section 302, any more stringent limitation required to implement any water quality standard established pursuant to this Act."

2. Amend section 302(a) of the Clean Water Act to read as follows:

   > "(a) Whenever, in the judgment of the Administrator or a state administering its own permit program, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under sections 301(b)(1) or 301(b)(2), would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection and propagation of a balanced population of shellfish, fish and wildlife, or water quality standards established to attain or maintain the same uses, then effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality."

3. Amend section 302(b) of the Clean Water Act to read as follows:

   > "(b)(1) Before establishing any effluent limitation pursuant to subsection (a) of this section the Administrator or the state shall publish the proposed limitation, and within ninety days of such publication, if requested by an affected permittee or any member of the public, hold a public hearing on the proposal.

"(2) Based upon evidence presented at such hearing or otherwise included in the public record, the Administrator or the state may issue a permit or permits which modify the effluent limitations required by subsection (a) of this section, provided that:

(i) the modified effluent limitations will protect public health, public drinking water supplies, and any agricultural, recreational, or industrial uses;

(ii) the assimilative capacity of affected portions of the navigable waters is unusually low (considering the amount and rate of discharges, and the availability of mixing zones) due to natural variations or limitations in runoff, manmade diversions or impoundments authorized by state laws governing the allocation of water, or other hydrologic restrictions or modifications that are beyond the reasonable control of the permittees; and

(iii) there is no reasonable relationship between the economic, social, and environmental costs and benefits to be obtained from achieving the limitations required by subsection (a) of this section; or, in the case of states, municipalities, and intermunicipal or interstate agencies, federal financial assistance for advanced waste treatment is not available as a result of a determination or determinations made under section 218(b)."

4. Amend section 302(c) of the Clean Water Act to read as follows:

"(c) Nothing in this section shall operate to delay the application of any effluent limitation established under sections 301(b)(1) or 301(b)(2)."